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# FINANCIAL TIMES

No. 27,530

Monday April 10 1978

\*\* 15p

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## GENERAL

### Somali coup attempt crushed

Somalia's military Government yesterday crushed an attempted coup by a group of army officers and soldiers.

After fighting and explosions had taken place on the edge of Mogadishu, President Siad Barre broadcast that there had been an abortive coup and that a number of soldiers had been arrested.

Meanwhile the Western Somali Liberation Front claimed that its guerrillas had killed 30 Cuban troops last week in an Ogaden desert ambush.

Back Page

### Hostages 'held' in new Israeli mini-bus raid

Palestinians hijacked a mini-bus and took hostages on the coastal road south of Tel Aviv last night in a repetition of the raid on Israel a month ago in which more than 30 people died, according to unofficial reports. The road was closed to all traffic last night as police and security forces were trying to control the situation.

### Beirut gunfire

Gunfire was exchanged in a south Beirut suburb last night between the Lebanese Right and its Palestinian and Left-wing allies. Syrian-Arab League peace-keeping troops were reported to have contained the clash. Sadat opts for patience.

Page 2

### Anglo-U.S. team in Salisbury talks

British and U.S. envoys, seeking to set up an all-party conference on Rhodesia, are to meet officials in Salisbury today and may later inform members of the four-man executive council of the transitional Government. Mr. Andrew Young, U.S. Ambassador to the UN en route from Africa to New York, talked with Dr. David Owen yesterday at the Foreign Secretary's country house. Page 2

### Moro message

Italian police were silent about the reported discovery of a fresh message from the kidnapped former Premier, Sig. Aldo Moro. The message is thought to be a tape-recording by Sig. Moro and to contain an ultimatum from his Red Brigades captors. Page 2

### Mason visit

Mr. Roy Mason, Minister for Northern Ireland, is expected to visit Dublin next month for talks on cross-border security and economic co-operation with Mr. Michael O'Kennedy, Irish Foreign Minister. Page 2

### Carter rating

President Carter's popularity in the U.S. remains steady with 50 per cent of the people saying he is doing a good job, according to a Gallup Poll published in the Washington Post. The figure has remained the same in polls during the past two months.

### Turfed out

A 23,000-sq-ft furniture operator, who lives on a common in a shelter made from turf and branches, has been told by Dacorum Council, Herts., to leave his home because it was built without planning permission.

### Briefly...

The Canadian Budget is expected to be a financial launching pad for a June election. Page 2

Sir Clough Williams-Ellis, the architect who created Portmead in the North Wales coast, has died, aged 94.

Premium Bond No. 7WT 12711 has won the £50,000 week-end prize for its North Yorkshire holder.

## BUSINESS

### UN move for forum to query companies

UNITED NATIONS is considering a plan to require multinational companies to explain their strategy on investment and jobs at a new international forum. The companies would be called upon to discuss their policies at a conference of Government or trade union representatives from the countries in which they have subsidiaries.

The proposal will be discussed at a meeting of the UN commission on transnational corporations in Vienna next month. The idea has been put forward by a labour adviser to the commission, Mr. David Lea, an official of the British TUC.

Multinational companies are likely to question the practicality and the cost of the proposed conferences. They are also protesting about another part of the commission's work—on accounting standards and disclosure of non-financial information. Back Page

### HOLLAND should boost its economic growth to deal with the threat of rising unemployment, according to the Organisation for Economic Co-operation and Development. Page 2

### U.K.-Japanese partnership ventures urged

JAPANESE and U.K. companies should join forces to set up new ventures in Britain, said Mr. Alan Williams, Industry Minister. In this way, Japanese industry could become job creators rather than job destroyers in the U.K. Back Page

### CENTRAL ELECTRICITY Generating Board has submitted to the Government its case for a £250m. cable linking the British and French grids. The cable would plug the U.K. into a European network already extensively interconnected. Page 4

### PRODUCTIVITY in the U.K. is likely to improve by 3.5 per cent this year and 3 per cent next year, according to a study by brokers Wood, Mackenzie. A big boost to productivity will come from North Sea oil, with production building up without the need for extra employment. Page 5

### ENGINEERING inquiry has been told that action is needed to overcome a shortage of top- quality technician engineers in industry. Page 4

### Dilemma over plan to buy U.S. airliners

BRITISH AIRWAYS is likely to set off a political controversy when it formally tells the Government this week that it wants to buy 20 U.S. Boeing 707 short-range jet airliners. The Government, anxious to ensure work for the nationalised aerospace industry, will face a dilemma, while the unions will feel that jobs are threatened by the State airline's "Buy American" move. News analysis, Page 13

### NATIONAL ENTERPRISE Board has indicated it will consider seriously any approach from Abex of the U.S. aimed at saving its metal tyre mould factory in County Durham, due to be closed at the end of June. Page 4

### STRIKE by lorry drivers at haulage companies in London and the South-East, due to begin yesterday, has been postponed while shop stewards seek official union backing. Page 5

### STOCK EXCHANGE will have a system of life membership in future, instead of annual re- election to membership. Page 4

## Budget to reduce income tax by more than £2bn.

### Healey hopes tax cuts will keep pay demands in check

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

Cuts in income tax of more than £2bn. to be announced to-morrow by Mr. Denis Healey, Chancellor, will be the first step in the Government's campaign to secure a single-figure rate of increase in earnings in the next pay round.

The aim is mainly to create the right climate for general acceptance of a lower rise in earnings. It is recognised in Whitehall that there is a slim chance of winning TUC support for any kind of formal phase four of pay policy.

Consequently, there will be no repetition of the exercise of the last two years in which part of the tax cuts have been made conditional on a pay agreement.

Officials still hope that an understanding, at least on the 13-month interval between pay settlements can be secured in discussions with the TUC on economic policy in the coming months.

At the minimum, the Government is likely to state both as an objective that if the annual rate of price inflation is to be reduced further after this summer, then the increase in average earnings in 1978-79 will have to be well under 10 per cent. This is expected to be built into public sector pay policy. A rise in average earnings in the current pay round is likely to be about 12 to 14 per cent.

Mr. Healey is likely to back his appeal for pay restraint by pointing to the improvement in living standards already achieved and in prospect after cuts in income tax of more than £2bn. in a full financial year, and rather less in 1978-79.

This is likely to leave the public sector borrowing requirement for 1978-79 comfortably below the £8.8bn. ceiling agreed with the International Monetary Fund. This, whether deliberately or otherwise, would provide a margin for manoeuvre in case any Commons committee defects on the Finance Bill result in a loss of expected revenue, while allowing possible scope for a July mini-Budget.

Apart from this, the main City interest will be in the money supply target, in particular the nature of any change to

Small companies aid and Lex.  
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Callaghan promises tax cuts.  
Page 4  
Other pre-Budget news. Page 5

of between £2bn. and £2.5bn. in a full financial year, and rather less in 1978-79.

This will consist of £130m. for the already announced special employment measures, £80m. on the postponement of the September rise in school meals charges, not more than £50m. on the National Health Service and certain other items, including school buildings, sex defence and devolution.

The Treasury appears to have resisted calls to bring forward to November 70p of the £1.70 increase in child benefit proposed for next April. This would have been a net stimulus

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### Hongkong Bank may be forced to disclose profits

BY STEWART FLEMING

NEW YORK, April 9.

THE HONGKONG and Shanghai Bank may be required to disclose publicly for the first time true profit figures and other financial information as a result of its decision, announced last week, to seek a 51 per cent interest in Marine Midland Bank of New York—the 13th largest U.S. commercial bank.

In addition to the public disclosures which may be required, the bank also will have to give detailed information about its operations to bank regulators in the U.S.

The three main agencies which must approve what promises to be the largest merger ever between international banks, based in different countries, are the Federal Reserve Board, the New York State banking department, and the Securities and Exchange Commission.

The U.S. regulatory requirements could present the Hongkong and Shanghai Bank with some painful decisions.

The bank is not required by its own regulatory authorities to make public the sort of detailed financial information required of comparable U.S. commercial banks.

It does not disclose, for example, even its true profits each year, but it is able to smooth its earnings trend by drawing on or transferring funds to a hidden reserve fund.

Asked last week whether the bank was likely to change its disclosure policies as a result of the proposed merger with Marine Midland, Mr. Michael Sandberg, Hongkong Bank chairman, said he did not expect this to be needed.

"I do not think we will change our disclosure policies," he said. "However, within the Securities and Exchange Commission it is being suggested that the agency, which is charged with protecting investors in public securities, may insist on fuller disclosure of financial information by Hongkong and Shanghai in the interests of Marine Midland shareholders."

Last year the Securities Commission tightened up its regulations on lenders offering drawn up under the authority given to the agency by the 1968 Williams Act and subsequent amendments.

Under the new regulations a company making a tender offer for the shares of another public company must now provide detailed financial statements as part of its tender offer document.

It is pointed out that the Hongkong Bank could not simply set up a U.S. entity to carry out the transaction in order to avoid disclosing information about the parent company.

In both cases, however, a substantial minority shareholding would be left. These shareholders, it can be argued, need detailed financial information about the Hongkong Bank before allowing it to take majority control. If the Hongkong Bank were buying 100 per cent of Marine Midland for cash this argument would be less forceful, according to Securities Commission sources.

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### Taxmen want £300 to offset workload

BY DAVID CHURCHILL

TAX OFFICERS are pressing for immediate Whitehall agreement on extra pay rises of up to £300 a year to compensate for the increased workload imposed by to-morrow's Budget.

The demand for a firm agreement now on pay rises which would not be implemented until next year is coupled with the threat of industrial action which could delay implementation of tax changes announced by the Chancellor.

For the first time, the taxmen's union, the Inland Revenue Staff Federation, will not give automatic acquiescence to the extra work arising from the Budget.

After previous budgets the union's general secretary traditionally has accepted the extra workload on behalf of its members following talks with the Inland Revenue chairman. But this Wednesday, the day after the Budget, the union's national executive will hold a special meeting to decide on its attitude.

Since last October's mini-Budget, the federation's 60,000 members have staged a three-month overtime ban and work-to-rule in protest at the workload.

Last year, tax changes arising from the three budgets spaced only three months apart, plus falling mortgage rates, and changes in other allowances all had to be manually re-coded for Britain's 25m. Pay As You Earn taxpayers. This was additional to the tax staff's normal job of re-coding tax allowances following changes in personal circumstances.

Some 3m. hours of overtime were worked last year—it would have been more but for the industrial action—and the effect of constant changes was to lower morale and to create "Budget fatigue," according to Mr. Tony Christopher, federation general secretary.

The pay claim submitted by the federation calls for an increase in the special allowance given to tax staff and would be in addition to any general Civil Service pay settlement reached in next April. The federation has already agreed to accept the Government offer of about 10 per cent increases for the next 12 months.

The claim would give a £3,000-a-year tax officer an increased allowance of £125 a year, while a tax inspector on more than £5,500 would get an extra £300 a year. The Civil Service Department has yet to reply formally to the claim.

Even when the new staff are taken on as the union wants, it will only effectively mean one new recruit for each tax office. Overworked Taxmen, Page 12

The reason is that the tender offer part of the proposed transaction involves initially the acquisition by Hongkong Bank of 25 per cent of Marine Midland's equity. By 1980 this stake would rise to 51 per cent, with new issues of shares.

In both cases, however, a substantial minority shareholding would be left. These shareholders, it can be argued, need detailed financial information about the Hongkong Bank before allowing it to take majority control. If the Hongkong Bank were buying 100 per cent of Marine Midland for cash this argument would be less forceful, according to Securities Commission sources.

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### EEC pledge to work on growth plans

BY GUY DE JONQUIERES, COMMON MARKET CORRESPONDENT

COPENHAGEN, April 9.

EEC GOVERNMENT leaders promised this week-end to work in the next three months toward a common strategy to restore economic growth, stabilise currency movements and combat protectionism, though they appeared still far from agreement on how these objectives could be attained.

Their aim, set out in a statement after a two-day European Council Meeting here, is to draw up by early July a package of co-ordinated measures to be presented as the EEC's contribution to world economic recovery at a seven-nation economic summit in Bonn later this month.

Mr. James Callaghan, appeared to caution against expectations that the EEC would decide on dramatic new steps.

He said that the psychological significance of the planned package was likely to be greater than the impact of the specific measures it contained, adding that "we must look at least as far as we can into the future."

Much of the leaders' discussion which was amid unusually strict secrecy, focused on the need to stabilise exchange rates.

There is general agreement that this must be done before a return to sustained growth can be assured, but there are marked differences over how much the EEC can usefully contribute to the task.

President Giscard d'Estaing of France emerged as champion of an independent EEC approach to currency problems. Noting that the Community was the only world trading power with internal exchange rate difficulties, he said that it must aim to establish its own currency "zone," but did not disclose what form he thought this might take.

Mr. Callaghan made it clear that he favoured a more comprehensive "international" approach, embracing the U.S., which would tackle directly the problem of the dollar.

His hopes seemed pinned mainly on the talks going on in the International Monetary Fund.

Other summit news, Page 2

Editorial comment, Page 14

### Trade talks review

BY DAVID EGLI

GENEVA, April 9.

KEY REPRESENTATIVES of the three leading trade partners engaged in the Tokyo round of multilateral trade negotiations—the U.S., Japan and the European Community—met here to-morrow for an informal review of progress.

Mr. Wilhelm Haferkamp, vice-president of the EEC Commission, will discuss major issues still outstanding with his U.S. counterpart, Mr. Robert Strauss, the special representative for trade negotiations, and with Mr. Nobuhiko Uehara, the Japanese Ambassador.

The hope is to smooth the path towards completion of the long drawn-out Tokyo round by late summer.

It is still expected here to achieve the broad outline of the final package of trade liberalisation measures by July 15—a deadline set nearly three months ago.

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## WORLD TRADE NEWS

## Yugoslav tariff changes

By A. Loh

**BELGRADE, April 9.** YUGOSLAVIAN LEGISLATION relating to external economic relations, a new Tariff Act and a new act on foreign investment is due to come into force in the next few months.

The new tariffs differ from the old in that they offer a higher degree of protection to some sectors whereas others will benefit from lower or zero tariffs.

In the agriculture sector there will be free imports of 66 products, mainly those imported from developing countries. Most other agricultural products will attract between 10 and 15 per cent in tariffs.

The average tariffs in the mineral sector will be increased from 4.2 to 8.2 per cent, and that on chemicals will rise to 9.96 per cent instead of 7.7 per cent.

## Canberra plan on EEC trade

By KENNETH MANDALL

CANBERRA, April 9.

AUSTRALIA has begun planning retaliatory measures against the EEC as a fall back position in the event that its latest negotiations fail to secure freer access to Europe for Australian goods.

The measures were considered by Cabinet last week as part of the negotiating brief for Mr. Vic Garland, the Minister for Special Trade Representations, who left for his four-week round of discussions with the EEC and member governments.

Mr. Garland said before he left that EEC trading policies "had grown progressively more harmful" and "had led to a distortion in the bilateral trading relationship, to Australia's disadvantage." He said the Government had determined that ways must be found to redress the balance.

It is understood that Cabinet approved in principle the imposition of a special import tax on all subsidised food lines from the Community. This would create a severe price disadvantage for items like cheese, confectionery, biscuits and brandy. The system would be similar to America's "countervailing" duties scheme.

Meanwhile Mr. Wal Fife the Minister for Business and Consumer Affairs, has invited competing Australian industries to apply for protection under anti-dumping laws. Speaking in Parliament he promised strong action where appropriate. Cheese would be the major item affected. Australia imports about 4,000 tonnes a year from the EEC, worth about \$43m. The main suppliers are Britain, Italy, France, Holland and Denmark.

## Briton heads European consortium

By John Lloyd

A TOP executive of the British Air Corporation has been appointed managing director of a joint Dutch-Swedish consortium which is supplying telecommunications equipment to the Saudi Government under a £25m. contract.

Air Commodore Norman Kearon, at present the chief executive of BAC's operations in Saudi Arabia, will move over to his new job within the next few months. An official announcement is expected shortly.

He will head a joint company created by the two telecommunications manufacturers who are supplying exchange equipment and telecommunication systems for the Saudi telephone network. They are L. Ericsson of Sweden and Philips of Holland.

The manufacturing part of the contract is worth over £10m, and it is expected that the work will last for the next five years. Overall management of the system is handled by Bell of Canada.

The contract, awarded last year, was the largest of its kind in the world. It was won by the Philips/Ericsson/Bell consortium in face of fierce competition from a group headed by ITT, and another headed by the U.S. company Western Electric, which included the three British companies of BICC, Cable and Wireless and Plessey.

The joint manufacturing by Ericsson and Philips represents a new departure for the two European companies, which are accustomed to compete.

Air Commodore Kearon, who was awarded the OBE in 1963, retired from the Royal Air Force in 1968 as the Director, Directorate of Organisation.

He is engaged in the £500m. contract signed between BAC and the Saudi Government last year.

## Spain puts new emphasis on exports

BY ROBERT GRAHAM IN MADRID

THE SPANISH Government has decided to increase the amount of credit available for exports by almost 30 per cent this year involving an allocation of Ptas.125bn. (\$1.8bn.) against Ptas.96bn. last year.

The boost in export credit is part of a plan to give new priority to this sector which also includes more funds for export promotion. The new priority for exports was formulated in broad terms last October when the Government and main opposition parties signed a package of economic measures, known as the Moncloa Pact.

The intention was to capitalise on the competitive edge afforded by the July 1977 peso devaluation and to try to divert excess capacity in the depressed domestic market towards exports.

Some businessmen have complained in private that the Government has been slow to translate this export priority into practical initiatives. Last year's export performance was one of the few bright spots in the economy. Spanish exports increased by 17.8 per cent in dollar terms and 32.9 per cent in peseta terms.

The Government will produce

the extra credit partly by tapping existing sources but also by relying on new areas of financing. Official credit made available to the Banco Exterior, the main export credit institution, will be increased from Pesetas17.6bn. to Pesetas25bn. In addition the Government is likely to submit shortly to the Cortes a request for Pesetas51bn. to activate a programme of increased overseas commercial representation.

This will be used to expand the Ministry of Commerce's existing overseas representation plus the opening up of commercial offices in areas of special new business interest such as Saudi Arabia and Nigeria. At the same time Sr. Juan Antonio Garcia Diaz, the Minister of Commerce, has also promised greater co-ordination between his ministry and the Ministry of Economy.

While the business community is expected to welcome this step, there is still a feeling that the Government needs to focus more attention on exports. Spain's balance of trade is distinctively negative. Although last year imports increased marginally at 2.4 per cent, in dollar terms and exports did very well, they only covered imports to the tune of 57 per cent. Imports cost Spain 17.8bn. while exports earned to set aside for export credit \$10.2bn.

Until the 1973 oil price rises, the assumption had been that tourism could always be relied upon to ease the impact of a trade imbalance on the overall balance of payments. However, with the increased cost of energy imports (about a quarter of Spain's import bill) and a leveling off of the expansion of tourism receipts, an improved export performance becomes essential.

Traditionally the strength of Spain's export performance has come from the predominance of small and medium sized companies which has enabled enormous flexibility with low overheads. This situation is now changing as demands are made for economies of scale and improved technology.

Large companies, with foreign shareholding, are in fact playing an increasing role in Spain's export performance. A recent table published in the weekly Actualidad Economica showed that 20 companies accounted for almost 15 per cent of total industrial exports. Of these half had significant foreign stakes. There was also a clear dominance of motor manufacturers, led by Ford. Five out of the first eight exporting companies were in the automotive sector.

## U.K. loses tractor business to Brazil

BY DIANA SMITH IN RIO DE JANEIRO AND LORNE BARLING IN LONDON

AS A RESULT of Brazil's willingness to accept the high risk of exporting to Turkey, now suffering severe economic problems, Britain has lost substantial export business for Massey Ferguson tractors.

Massey Ferguson UK said it had supplied around 58,000 tractors to Turkey over the past three years, accounting for about 30 per cent of the Turkish market. But exports have virtually ceased since the Export Credit Guarantee Department clamped down on business with the Turks.

Since the middle of last year ECGD has offered only very limited cover for exports to Turkey and despite recent International Monetary Fund aid, Turkey will not be granted normal cover until present debts have been repaid and some repayments made.

Massey Ferguson has meanwhile made use of its under-utilised Brazilian plant to fill the gap, with the State trading company Interbras acting as intermediary and the Government effectively providing financial backing and guarantees.

Massey Ferguson UK insists that the deal is merely a way of maintaining its position in the Turkish market until conditions allow supplies from the U.K. to be resumed but the 7200 tractors being sold from Brazil will clearly meet demand for some time.

Massey Ferguson do Brasil the subsidiary company has already received in payment the equivalent of \$35m. from Interbras, which drew on special export incentive funds and the Bank of Brazil (which provided the foreign exchange part of the deal). Turkish banks and the Turkish Government undertook to back the purchase.

Thus if Turkey defaults, Massey Ferguson will not suffer, although Interbras would be faced with repayment of the incentive funds and the sum to the Bank of Brazil.

Mr. Ute Engelbrecht, Massey Ferguson's president in Brazil, said the deal was normal Brazilian export practice, but claimed

that the company had made nothing on the deal due to "the unreal devaluation of the cruzeiro against the dollar."

Industry sources in Brazil believe, however, that the real loser will be Interbras if the order is not completed. This would be particularly embarrassing since there was considerable local discontent over the deal.

It was specially annoying to Brazilian tractor manufacturers who have severe overcapacity and have had a difficult time getting credit for exports since the Government switched emphasis from agriculture to heavy industry.

Several multi-nationals have benefited from the Government policy of aiding foreign companies to export but it now appears that the scheme is being re-examined and the means

time priority is being given to Brazilian companies for special credit.

The less easy times being experienced by Massey Ferguson in Brazil could mean that the work will eventually come back to Britain, where talks are continuing on how normal cover can be restored for such exports.

Estimates indicate that in March Brazil corrected its January-February trade deficit. Although full figures are not yet available imports and exports are estimated to have balanced at \$800m. last month. The trade deficit for the first quarter thus remains at the end of February level of just under \$350m. The improvement is attributed to substantially higher coffee sales in March—\$100m. compared with about \$20m. a month in January and February.

## Argentine wool cloth protest

FINANCIAL TIMES REPORTER

CONCERN IS growing in Britain's wool textile industry about increasing imports of subsidised cloth from Argentina. A ten-man delegation from the industry in West Yorkshire and Scotland have had talks with the Inter-parliamentary wool textile group of MPs, chaired by Mr. Ben Ford, Labour MP for Bradford North.

The delegation, led by Mr. Michael Roberts, chairman of the wool textile delegation, stated that there had been a dramatic rise in imports of wool cloth from Argentina from 28,000

square metres in 1976 to 738,000 square metres last year. Imports were still running at this level, and were posing a serious threat to U.K. cloth manufacturers.

After the meeting, Mr. Ford said they would press for urgent talks with Mr. Michael Mescher, Parliamentary Under Secretary for Trade, to seek measures to prevent a huge escalation in the imports as occurred with cheap suits from Eastern Europe. The industry is also to make a case to the EEC Commissioner responsible for prices policy to secure his intervention in the matter.

## Contract at Masinga

By JOHN FORRALL

NAIROBI, April 9.

CONTRACTS WORTH about £50m for the construction of Kenya's Masinga Dam have been awarded mainly to West Germany, Mr. G. W. Gichuki, chairman of the Tana River Development Authority announced here.

The reservoir is to be the

biggest in Eastern Africa and will regulate the flow of a large volume of the waters of the Upper Tana River catchments.

The main £30m. contract for building the dam and the power station has been awarded to a group of contractors led by Hallman and Littman of West Germany. The group has formed a joint company in Holland called the Masinga Dam B.V. which in turn has formed a wholly-owned company in Kenya called Mascon Limited.

The French company, BVS of Grenoble is to supply and install the screens, guard control gates and cleaning equipment. Brown Boveri of Germany is to supply and install two 20mW hydro-electric turbines and ancillary equipment. Clough Smith of the U.K. has been awarded the contract for a road diversion and the supply and installation of switchgear.

Another West German company, GG Noell GMBH of Würzburg has been awarded the contract for supplying and installing steel liners for the culverts built under the dam between the intake and the power station.

The Nigerian Ministry of Defence has awarded a £13.3m. contract to George Wimpey (Nigeria) for the construction of 12 barrack blocks linked in pairs, together with an officers' mess, a mosque, chapel, gymnasium and shopping centre at the Nigerian Air Force base at Ikeja, near Lagos. Wimpey will also be responsible for roads and other infrastructure requirements.

Svenska Flakt has received an order valued at \$2.3m. for a bag filter installation for a large tractor plant in the Soviet Union where it will be used for cleaning flue gases from the plant's foundry.

National Cash Register of Ohio, is to supply Sudan's state-owned electricity authority with a new computer system under a \$0.5m. contract. The NCR system will replace an IBM 580/20 system which the public electricity and water corporation has leased from IBM for the past seven years. Both IBM and NCR submitted bids for the new equipment.

Allison Pipework and Process Plant Ltd. has received a £2.5m. contract for the fabrication and erection of high pressure steam piping systems and ancillary steam piping systems from the Ontario Hydro Corporation for their plant expansion at Thunder Bay, Ontario.

Hawker Siddley power engineering's generation division, has received a £750,000 contract to supply electrical distribution and stand-by diesel power plant to the Maiduguri teaching hospital complex in Nigeria, for Technical Constructors (Nigeria).

## SHIPPING REPORT

## New plan to help tanker section

By IAN HARGREAVES, SHIPPING CORRESPONDENT

ANOTHER SCHEME to artificially raise freight rates for oil tankers in order to relieve financial pressure on independent owners has been proposed, this time by a London shipbroker.

The idea comes from Lambert Brothers, the Hill Samuel subsidiary, which wants to see the value of freight on a Gulf-Europe VLCC is less than 3 per cent of the cargo value at present rates. So the overall minimum freight rate, the market would continue to operate as normal, but any deal at less than the minimum would be subject to a surcharge, payable into a central fund for

distribution to owner members. Lambert suggests dividing the world fleet into size groups, each with its own minimum. It would cover period charter vessels on consecutive voyages, but not prevent the emergence of a Government-Oil company monopoly.

Meanwhile in the tanker markets, last week saw a little more activity but no hardening of rates. VLCCs from the Gulf to Europe languish at worldwide 18.5 and even 16,000 tonners are accepting WS19.75. Slightly better conditions prevailed for 80,000 dwt class vessels in the Mediterranean, but elsewhere there was little cheer.

In dry cargo trades, the monthly report from Matheson notes a general improvement in rates, but says this is mainly caused by seasonal factors and is for the most part grain-based. There is plenty of inquiry around, but little optimism that the improvement will last—or that another market-fixing scheme, that proposed by the Greek shipowners—will succeed in doing anything about it.

Bulk carrier values continue to fall as a result of the low market expectations. Harley, Mullion notes the sale of a 30,000 dwt geared carrier to China at \$5.9m. It had cost \$12.5m. one year earlier.

# OCL

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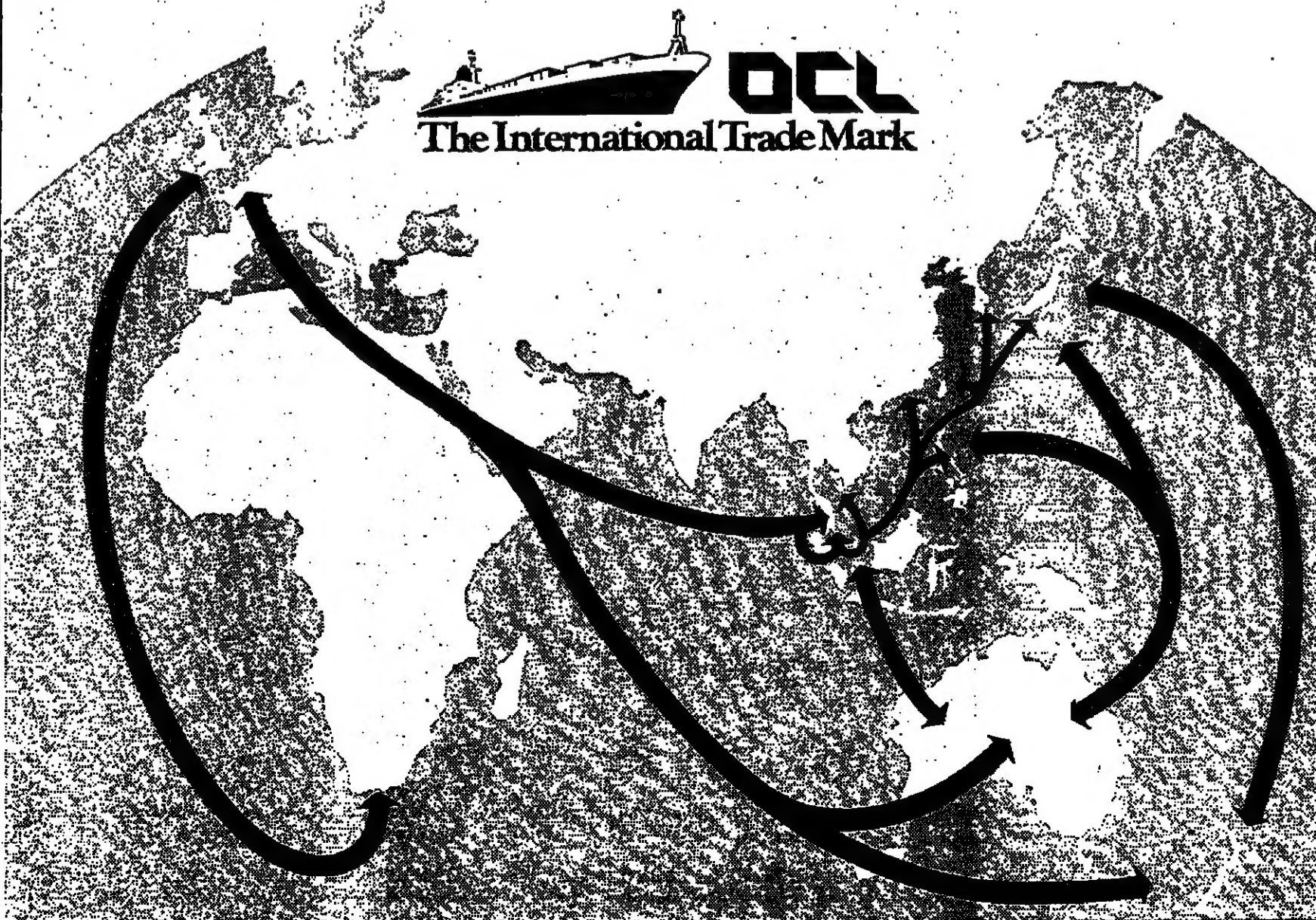
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## World Economic Indicators

	Feb. 78	Jan. 78	Dec. 77	Nov. 77	Oct. 77	% change over earlier year	Index base year
U.K.	190.6	189.5	188.4	174.1	142.3	+ 9.5	1974=100
W. Germany	144.2	143.4	142.3	140.3	139.4	+ 2.8	1970=100
France	127.2	125.9	124.7	123.5	122.4	+ 2.2	1970=100
Italy	120.1	119.4	119.1	115.3	114.3	+ 4.1	1975=100
U.S.	188.4	187.2	186.1	177.1	176.1	+ 4.2	1967=100
Holland	117.9	117.4	117.9	113.1	112.1	+ 4.4	1975=100
Belgium	125.25	124.76	124.31	117.8	116.8	+ 6.3	1975=100

\* Change in Base Date—previous figures not available.



### WE, THE LIMBLESS, LOOK TO YOU FOR HELP

Welcome from both world wars. We come from Kenya, Malaya, Aden, Cyprus... and from Ulster. From keeping the peace no less than from war we limbless look to you for help.

And you can help, by helping our Association: BLESMA (the British Limbless Ex-Service Men's Association) looks after the limbless from all the Services. It helps, with advice and encouragement, to overcome the shock of losing arms, or legs or an eye. It sees that red-tape does not stand in the way of the right entitlement to pension. And, for severely handicapped and the elderly, it provides Residential Homes where they can live in peace and dignity.

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## HOME NEWS

## Motorway catering still appalling, says Egon Ronay

FINANCIAL TIMES REPORTER

MOTORWAY catering standards have improved only slightly in recent months, in spite of widespread public criticism and the setting up of a Government inquiry.

According to the latest survey on motorway catering published by the Egon Ronay Organisation, the public outcry has had little effect on standards, even for the most basic food.

Mr. Ronay says in the report: "The public is not concerned with dividends to shareholders and the return on invested capital."

"People are entitled to expect that the very basic food, for which limited skill is needed in the kitchens, should be of good quality. Inedible sausages, lard pea-water, stale, tough ham-burgers, solid and old pastries and frequent staleness cannot be ascribed to the low return on invested capital."

At the time of the previous Egon Ronay survey, last November, 73 per cent. of the restaurants and cafeterias visited were judged "poor" or "appalling". Sixty-one per cent. are placed in the same categories in the latest inquiry.

Trust Houses Forte, the largest motorway caterers, again comes in for severe criticism. The survey says that while there have been conspicuous improvements in decor, seating, crockery, layout and staff, the quality of food has not improved much.

The company's Newport Pagnell cafeteria, on the M1, is graded by inspectors as "appalling". Another opened last year at Burtonwood, Lancashire, was found in "an indefensible state of neglect".

Granada, however, is praised for greatly improving the standard of food.

## 'Too few electronic engineers' claim

FINANCIAL TIMES REPORTER

ACTION is required to end the general shortage of top-quality technicians in industry, according to the Institution of Electronic and Radio Engineers.

The institution's evidence to the Committee of Inquiry into the Engineering Profession claims that engineers for supervisory work in production engineering and for production line test and quality-control work are scarce.

Neither was there sufficient chartered engineers with an adequate understanding of systems engineering for work at the design, production and sales

engineering levels to meet the needs of an expanding electronics industry.

The extent and shape of the national educational and training system was no longer in tune with the needs of the rapidly-developing technology of electronics.

Longer degree courses in electronics engineering should be established to stimulate higher success rates and ensure a better supply of potentially top-quality engineers.

There was a need for a system of statutory registration and licensing of engineers within the U.K.

## Callaghan promises tax cuts in Budget

BY RAY PERMAN, SCOTTISH CORRESPONDENT

THE PRIME MINISTER promised yesterday that tomorrow's Budget would carry further the programme of tax cuts begun last year.

A message from Mr. Callaghan supporting the Labour candidate in the Garscadden by-election on Thursday, urged voters to maintain the "Auld Alliance" between Scotland and the Labour Party, and says that tax cuts last year were worth £2 a week to a man on average wages with two children.

Labour was winning in its battle against inflation, living standards were rising, and un-

employment had fallen for the sixth successive month. Mr. Keith Bovey, the Scottish National Party candidate, attacked the Government for its "failure" on unemployment and criticised the Scottish TUC for endorsing the Labour candidate.

## Top speakers

In the last three days of campaigning Labour SNP and Conservatives are putting some of their best-known spokesmen into the constituency. Mr. Michael Foot, Leader of the Commons, addressed a meeting last night in

support of Mr. Donald Dewar, the Labour candidate. He was the first of four Cabinet Ministers to speak in Garscadden this week.

Mr. Donald Stewart, Parliamentary leader of the Nationalists, will support Mr. Bovey, and Mr. Ian Gilmour, Shadow Defence Secretary, will speak in support of Mr. Iain Lawson, the Tory candidate.

Labour had a majority of 7,600 over the SNP at the General Election. There are also candidates from the Communist, Scottish Labour and Socialist Workers Parties.

Feature, Page 27

## Hope still of saving tyre jobs

By Stuart Alexander

THE National Enterprise Board would consider seriously any approach from the U.S. parent or the local management in a bid to save Britain's main independent metal tyre-mould producer.

The company, Abex Engineering Products, at Newton Aycliffe, County Durham, has reduced its workforce by 40 per cent. from more than 150 to 90, ahead of a complete closure at the end of June.

This has been ordered by the U.S. parent, Abex, which is pulling out of tyre-mould manufacture in Europe and the U.S. The reason given is the recent recession in the tyre industry and overcapacity among mould manufacturers.

In Britain, however, big tyre manufacturers such as Firestone, Pirelli and Avon rely on Abex for their moulds. Dunlop has its own facilities. A closure by Abex would lead to extra imports

## Footwear warning for the disabled

A GRIM future for people who depend on orthopaedic footwear—boots and shoes specially prescribed by a doctor—is forecast in a report released today by the Disabilities Study Unit, writes David Fishlock.

Nearly half the craftsmen who make and repair such footwear will be past retirement or close to it by 1985. But the industry is unable to recruit younger staff because of its unattractive image, poor pay and inadequate training facilities.

It is estimated that every year up to 110,000 pairs of orthopaedic shoes are needed in Britain, and over 250,000 repaired.

Dr. Duncan Guthrie, director of the study unit, which commissioned the report from the P.E. Consulting Group, wants the Government to bring the 70 or so manufacturing contractors, together with hospital workshops, into a single State-owned service to safeguard its future.

The Government already controls the cash available to the industry, through Health Depart-

ment pricing policy. It also competes with the private contractors through Remploy, a State-owned company which makes orthopaedic footwear.

"Almost certainly it is only the Government that can supply the funds necessary to develop recruitment adequately and to expand and upgrade training," says Dr. Guthrie.

## Smokers asked to raise cash

Smokers are being asked to kick the habit for a month—to help the country's disabled by the Royal Association for Disability and Rehabilitation, which is launching its first national anti-smoking campaign to give a financial boost to its work on behalf of the 3.5m. physically disabled in Britain.

It is asking people to try to stop smoking for a month from June 1—and to get sponsors to back them.

## Stock Exchange abolishes annual elections

FINANCIAL TIMES REPORTER

THE Stock Exchange has ended its system of annual re-elections for membership. From now on members will hold life membership and will only be allowed to withdraw by voluntarily resigning.

This could be a major step in extending the Stock Exchange Council's control over members faced with alleged misdeeds, as it can refuse any application to resign.

In the past, members have been able to thwart an Exchange investigation simply by allowing their membership to lapse, thus depriving the investigators of the ability to examine members' activities and publish their findings.

The Council has been discussing the possibilities of life membership for some time. The status should simplify the paperwork involved with applications for re-election each year but the Council had considered annual membership to be a sanction of last resort.

## Conduct

It could refuse re-election to any member whose activities were in question during the year, even if there was no actual evidence against him. However, recent legal advice indicates that the courts could rule this sanction to be unlawful and so the annual re-election could no longer be an effective method of control.

By adopting life membership the Council has the ability to hold open any investigation until it is concluded. Even if a member refuses to pay his subscription, he will still be considered as a member of the Stock Exchange for the sake of investigation of his conduct.

This will keep the member within the Council's jurisdiction until any investigation is complete and results are published.

## Quota plan could lift lamb costs

By Richard Mooney

LAMB could be priced off the U.K. market if the EEC insists on limiting imports from New Zealand, a leading British butcher said yesterday.

Mr. Roy Taylor, newly elected president of the National Federation of Meat Traders, said at his organisation's annual conference at Cheltenham: "Our trade with New Zealand must be safeguarded absolutely."

The Federation opposed any quotas on imports, Mr. Taylor said. "However generous any initial quota might appear, it is only too simple for Brussels bureaucrats at a stroke of a pen to change it."

Even traders who handled only home-produced lamb recognised that if the expected increase in U.K. exports coincided with limitation on New Zealand supplies, lamb could be priced off the British menu.

## Lawyers oppose pay award blacklisting

THE GOVERNMENT'S action in blacklisting companies for pay awards was contrary to the rule of law, the British Legal Association said yesterday. Its annual conference at Hereford passed a resolution that blacklisting was unconstitutional.

If continued, it would enable the Government of the day to enforce its party policies under the pretext of "national interest" without recourse to Parliament.

The association resolved that imposition by the Government of unspecified pay guidelines enforced by specific penalties without authority of Parliament was constitutionally improper.

Delegates said they would welcome court proceedings for a declaration as to the propriety of the Government's actions.

## Tyne port shows profit of £750,000

THE PORT of Tyne Authority had its best year in 1977. The annual report shows a net operating profit of £750,000, with general cargo trade rising by 160,000 tons to 1.9m. tons.

The report says the surplus will be spent on developing the port's facilities, including a new roll-on roll-off terminal. The new berth is due to be opened later this year and will be designed to accommodate all existing ship sizes and those planned in the next ten years.

## Garage skills

THE POST OFFICE has opened a £1m. motor transport school at Stone, Staffordshire, which will train up to 3,000 mechanics a year to help keep 75,000 Post Office vehicles running.

## Case for French grid link put to Government

BY DAVID FISHLOCK, SCIENCE EDITOR

THE CENTRAL ELECTRICITY Generating Board has submitted to the Government its commercial case for a £250m. cable linking the British and French grids, as agreed between Mr. James Callaghan and President Giscard d'Estaing in London last December.

The two leaders said then that a satisfactory commercial case for the 3,000 MW buried cable could be made the project, under discussion between the Board and Electricité de France for three years, should go ahead.

Cost and construction would

be shared by the two. The cost is likely to be appreciably higher than once hoped, partly because of problems of burying the cable in a rocky seabed.

Both countries believe that because their peak loads do not quite coincide there is plenty scope for profitable transfers of electricity between them.

The scheme would provide a country with insurance against unexpected interruptions in supply, and in the case of France against what is believed to be inevitable delays in commissioning enough new nuclear capacity in the 1980s.

## Fewer pass maths O-level exams

BY MICHAEL DIXON, EDUCATION CORRESPONDENT

A DECLINE in the success rate in the 16-plus examinations in level exams in these subjects—where entries rose by 17 per cent closed by statistics published today by the Department of Education and Science.

Entries for the main GCE ordinary level and Certificate of Secondary Education exams in mathematics and science and technology subjects rose by 44 per cent. to 2.7m. during 1972 to 1976. But the proportion gaining the O-level pass award or its equivalent fell from 40.5 per cent. of the entry

to 34.1 per cent. In the ordinary level exams in these subjects—where entries rose by 17 per cent closed by statistics published today by the Department of Education and Science.

In the less academic CSE—where entries increased by 7 per cent. to 1.5m.—the proportion gaining the equivalent O-level pass fell from 15.1 to 12 per cent.

Statistics of Education 1977-78. O-level passers: 1976-77, 1.5m.; 1977-78, 1.4m. CSE passers: 1976-77, 1.5m.; 1977-78, 1.4m.

## Report calls for 'tax shelter companies'

FINANCIAL TIMES REPORTER

THE LOW birth rate of small companies in Britain, rather than the rate of their subsequent failure, lies behind their small stake in the British economy, according to evidence submitted to the Wilson Committee by the Economic Advisory Group.

The author of the report, commissioned by Charterhouse Group, a supplier of development capital, Mr. Graham Bannock, makes proposals designed to improve the tax and financial climate for small company formation.

He proposes legislation to allow "tax shelter companies," where shareholders could offset losses made by the company against personal income or capital gains. He also suggests a personal income-tax relief for losses in equity investment in small firms.

Company law should be amended to allow small firms to repurchase equity from supplying institutions. Directors' close companies should be allowed to offset such purchases against taxable income.

## COMPANY NOTICES

## CORRECTION TO NOTICE

PUBLISHED 7th APRIL 1978

## COMPAGNIE FINANCIERE DE PARIS ET DES PAYS-BAS

## NOTICE TO SHAREHOLDERS

Bearer Depositary Certificates  
These certificates should be lodged for marking of Square No. 6 and not Square No. 4.

Settlement of Additional Payments  
Subject to completion of Form RF-4GB the additional amount receivable per Bearer Deposit Certificate is F.Fr.0.17375 and not F.Fr.0.13175.

10th April, 1978 Compagnie Financière de Paris et des Pays-Bas

## NOTICE TO HOLDERS OF EUROFIMA SUS20,000,000 7% NOTES OF 1977 DUE 1983

Holders of Notes are informed that as from today Arab Bank Limited, Manama — Bahrain, will no longer act as a Paying Agent for the above loan.

The Fiscal Agent  
KREDITBANK  
S.A. Luxembourg

April 10, 1978

THE ZENITH CARBURETOR COMPANY LIMITED

NOTICE IS HEREBY GIVEN that the 1978 General Meeting of Shareholders will be held at the offices of the Company's Registrars, Messrs. J. & J. Morgan, 15, Abchurch Lane, London EC4N 3DF, on the 17th day of May, 1978, at 3.00 p.m. on the 17th day of May, 1978.

Corporate members 25 relative to "A" shares, 10 relative to "B" shares, 10 relative to "C" shares, 10 relative to "D" shares, 10 relative to "E" shares, 10 relative to "F" shares, 10 relative to "G" shares, 10 relative to "H" shares, 10 relative to "I" shares, 10 relative to "J" shares, 10 relative to "K" shares, 10 relative to "L" shares, 10 relative to "M" shares, 10 relative to "N" shares, 10 relative to "O" shares, 10 relative to "P" shares, 10 relative to "Q" shares, 10 relative to "R" shares, 10 relative to "S" shares, 10 relative to "T" shares, 10 relative to "U" shares, 10 relative to "V" shares, 10 relative to "W" shares, 10 relative to "X" shares, 10 relative to "Y" shares, 10 relative to "Z" shares, 10 relative to "AA" shares, 10 relative to "BB" shares, 10 relative to "CC" shares, 10 relative to "DD" shares, 10 relative to "EE" shares, 10 relative to "FF" shares, 10 relative to "GG" shares, 10 relative to "HH" shares, 10 relative to "II" shares, 10 relative to "JJ" shares, 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## HOME NEWS

## Sea oil likely to lift U.K. productivity

BY DAVID FREUD

PRODUCTIVITY of the U.K. economy is likely to grow 3.5 per cent this year and 3 per cent next year, according to a study by City stockbrokers Wood, Mackenzie.

The firm says, although these might seem high growth rates in comparison with those of recent years, if the effect of North Sea oil is excluded they indicate a performance slightly worse than that achieved in the pre-1973 period.

Nevertheless, the increase in productivity, the expected sharp rise in the labour force, and the likelihood of a 3 per cent increase in output, might bring U.K. unemployment up to 1.5m by mid-1979, compared with the present 1.4m.

The main reasons for the expected improvement in productivity are:

- A rise in output which will enable plants to be used more efficiently.
- North Sea oil, which is forecast to contribute nearly 1 per cent to GDP but growth rates next year without adding to employment.
- A slowdown in the growth of employment in unproductive services.
- Measures being taken to reduce capacity and over-manning in key industries such as steel and vehicles.

Because the extra income from North Sea oil does not involve any additional employment, the boost to productivity is equivalent to the addition to GDP of nearly 1 per cent.

The manufacturing sector's productivity is expected to grow 0.5 per cent this year and next year, in line with increased oil is excluded they indicate a performance slightly worse than that achieved in the pre-1973 period.

The firm believes present forecasts of manufacturing production growth of 2.5 per cent are unduly pessimistic.

It points out that there will be some opportunity for U.K. producers to win back some market share from imports, for example in textiles where the EEC have introduced quotas and vehicles where there should be some improvement in labour relations.

A rise in world trade and a more competitive exchange rate should mean some improvement in export performance next year.

Productivity in the service sector is expected to grow about 2 per cent a year in the next two years, mainly because of the fall in employment.

The 2 per cent figure compares with 1.5 per cent average growth each year between 1970 and 1973 and a 1.2 per cent productivity decline between 1973 and last year.

## Chamber opposes Liberal scheme

BY OUR ECONOMICS STAFF

BUSINESS would prefer high levels of direct tax cuts to be financed by increases in Value Added Tax and other indirect taxes such as petrol duty where necessary, according to the latest economic report from the London Chamber of Commerce and Industry.

The report, published this morning, says the Liberal Party's proposals to achieve this by further increases in the employers' national insurance contribution is strongly opposed.

The Chamber predicts that the overall stimulus will be about £2bn. in tax cuts and that concern about the retail price index will discourage any great use of indirect taxes to finance larger cuts in direct tax.

The danger of inflation boosting imports must be recognised but the need to provide incentives is of equal urgency, the report says.

In a separate note the London Chamber has written to the Chancellor calling for a further relaxation in exchange controls. In particular it wants the abolition of the control which curtails the use of sterling in third country trading.

## LABOUR NEWS

## Lorry drivers postpone strike over allowance

BY PHILIP BASSETT, LABOUR STAFF

STRIKES BY lorry drivers at nearly 2,000 haulage companies in London and the south-east, due to begin yesterday have been postponed until the drivers' shop stewards have had a reply to their request for official backing.

Intervention by the Advisory, Conciliation and Arbitration Service has failed to solve a pay dispute at the heart of the London drivers' problem.

The drivers' stewards voted last month to recommend strike action over the pay claim, but suspended any action until yesterday so that the dispute could be referred to ACAS.

Senior officials of the Transport and General Workers' Union, the drivers' union, have said that because the dispute arose from a breach of an agreement, official backing for a strike was likely.

Stewards are likely to meet this week, after they receive the reply from union headquarters, to decide how the strike action is to hit haulage companies.

The dispute is about a 25p daily meal allowance originally included in a Road Haulage Association pay package. The 25p

allowance was dropped from the deal after pressure from other regions.

London stewards rejected a replacement offer of a 35p-a-week meal element, and decided to recommend a strike in support of the claim.

After the dispute was referred to Advisory, Conciliation and Arbitration Service, the unions decided to accept the package with no meal allowance, provided that the allowance went to arbitration. The Road Haulage Association did not agree to this and the stewards then applied for official strike backing.

## TUC rejects pensions for everyone at 63

BY OUR LABOUR STAFF

THE TUC has rejected a suggestion by the Equal Opportunities Commission that a common retirement age of 63 should be introduced for men and women.

A recent consultative document by the commission, *Equalising the Pension Age*, made the suggestion as a "feasible proposal to promote discussion."

The TUC said today that the idea was a step back from achieving retirement at 60 on an adequate pension for both men and women, a policy which had the

overwhelming support of working people. While the TUC was firmly committed to seeking a reduction in retirement age of men from 65 to 60, it strongly opposed any "breach of faith" which would deprive women of their right to a national insurance pension at 60.

It had established a joint study group with the Labour Party to consider ways in which a common retirement age might be phased in, but would not retreat from achievements already reached.

## Make sit-ins official, say stewards

SHOP STEWARDS at two

Rolls-Royce aero-engine factories in Coventry where sit-ins are continuing are to apply to their unions for official recognition of a pay dispute which has caused nearly 6,500 workers to be laid off.

The stewards claim that they are being refused a settlement within pay guidelines.

The company offer is a 9.3 per cent increase, and the dispute is over the timing of the payment of the remaining 0.3 per cent.

## Midland Bank plans agreement with rival unions

BY NICK GARNETT, LABOUR STAFF

MIDLAND BANK still hopes eventually to sign a joint procedure agreement and has since offered both unions the same but separate arrangements.

However, the decision by the NUBE executive to abandon talks angered the union's local "institutional committee," which represents NUBE members in Midland Bank.

NUBE's executive now appears to have taken a slightly softer line on the possibility of re-opening joint talks with ASTMS. The Midland retorted by announcing the scrapping of NUBE's 1970

agreement and has since offered both unions the same but separate arrangements.

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agreement and has since offered both unions the same but separate arrangements.

## Steel union chiefs to discuss closure

BY ROBIN REEVES, WELSH CORRESPONDENT

NEGOTIATIONS on the early closure of the navy-steelmaking plant at Ebbw Vale works, with the loss of more than 2,000 jobs, take place this week in South Wales.

The TUC's steel committee, led by Mr. Bill Sims, general secretary of the Iron and Steel Trades Confederation, is to meet local union representatives to-morrow to discuss their conditions for agreeing to shut down the plant a year earlier than planned.

The actual closure negotiations with British Steel management take place on Wednesday.

The discussions may not be straightforward. There is

reported to be a strong feeling within the Ebbw Vale workforce that, unless the special redundancy terms turn out to be better than those secured for the early closure of Hartlepool and East Moors, they would prefer to soldier on for the remainder of the plant's allotted life.

## Cash limits on public spending 'retrograde'

BY PETER RIDDELL, ECONOMICS CORRESPONDENT

STRONG criticism of the cash limits system of control over public spending as "basically unnecessary and retrograde" comes this morning from Mr. Peter Oppenheimer, the Oxford economist.

Mr. Oppenheimer writes in the April issue of *stockbrokers' Vickers' da Costa's* regular circular on the British economy that the system was retrograde because it extended the new-found and in itself entirely proper concern of policymakers with nominal variables into an area where it was out of place.

The breakdown of public expenditure control in 1974-75 was a 12-month wonder, and that control was soon restored, with a cash limit. These came in only a year later, in April 1976.

The breakdown in 1974-75 would not have been prevented even if cash limits had existed. The shocks to the macro-economic system were simply too great.

Abolition of cash limits was unlikely to be announced in the Budget speech, however. Indeed it had become a "retrograde" established part of the public spending system.

Cash limits were used to encourage both expenditure where they were applied and a more restrictive, free finance than the authorities intended.

The post-1974-75 medium-term planning scheme (known as the "frequently-cavanned") was basically sound and did not need supplementing with cash limits.

## £2.2bn. boost forecast

THE EXPANSIONARY effect of tomorrow's Budget is likely to be offset by slow world growth and continued high personal savings, according to City stockbrokers Montagu, Loeb, Stanley, and David Freud.

The firm forecast an expansionary package of about £2.2bn. consisting of £2.2bn. increase in income tax, a £500m. increase in budgeted public expenditure, and a £500m. increase in direct taxes.

Package of this size is not expected to have much effect in raising employment, investment or stimulating output by more than a short-term fillip during the middle of this year.

Stockbrokers Sheppards and Chase expect the tax reduction to be below the "frequently-cavanned" figure of £2.2bn. probably in the region of £1.75bn. in the 1978/79 fiscal year, equivalent to £2.5bn. in a full year.

## Customers wait and see

CONSUMERS have not been using to beat the Budget this year apart from last-minute weeks, but not a dramatic up to speed in spirits.

Wine merchant Unwin's said it expected any tax cuts in the Budget to lead to a rise in consumer spending. But, on the basis of past Budgets, this would not work its way through until June or July.

## Week in Parliament

**TO-DAY** Commons—Motions on National Enterprise Board (financial limit) Order and Financial Assistance to British Leyland. Motion on EEC documents on farm structures.

**TUESDAY** Debate on collective bargaining.

**WEDNESDAY** Commons—Expenditure, Education, Arts and Home Office sub-committee. Subject: Reduction of Pressure on the Prison System. Witnesses: Magistrates' Association. (4.15 p.m. Room 13.) Overseas Development. Sub-committee. Subject: Renegotiation of the Lome Convention. Witnesses: Mr. Frank Judd, MP, Minister of State, FCO. (4.30 p.m. Room 6.) Public Accounts. Subject: Appropriation Accounts. Witnesses: Department of Energy, U.K. Atomic Energy Authority. (5 p.m. Room 16.)

**THURSDAY** Commons—Opposed private business followed by motion on EEC documents on Community textile policy.

**FRIDAY** Commons—Export guarantees and Overseas Investment Bill (consolidation measure), second reading. Oaths Bills (consolidation measure), second reading. Scotland Bill, committee stage. Motion to approve housing (homeless persons) (appropriate arrangements) Order 1978.

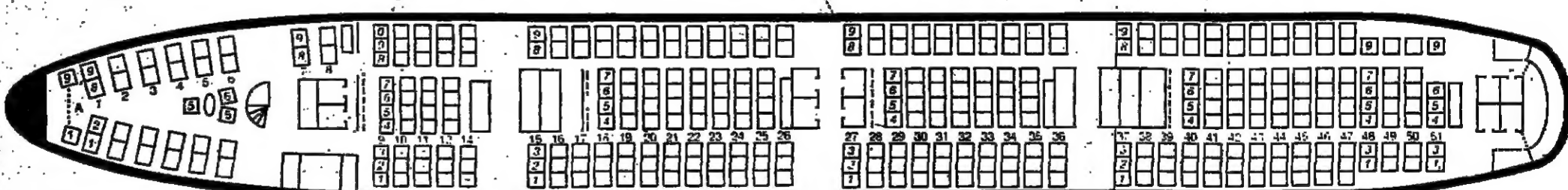
**WEDNESDAY** Commons—Continuation of Budget debate.

**THURSDAY** Commons—Continuation of Budget debate.

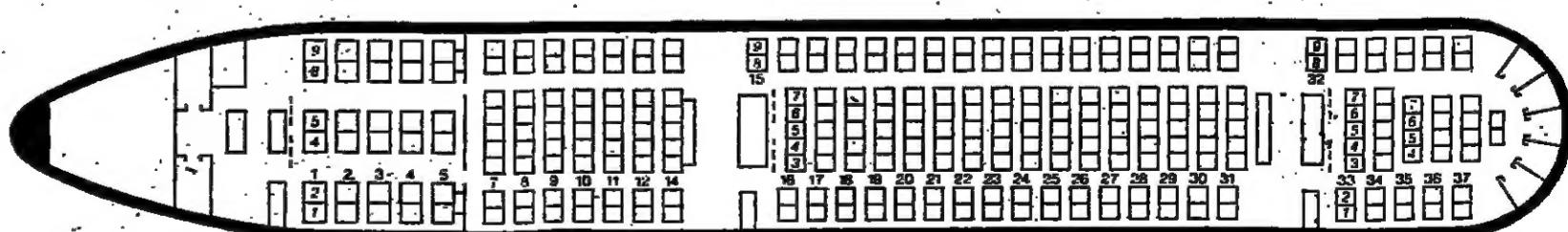
**FRIDAY** Commons—Private members' Bill.

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## Gleeson's £6m. at home and abroad

LARGEST OF THE £6m. worth of contracts captured by Gleeson companies over the past few days is a Thamesmead award by the GLC worth £2.5m. plus and covering the construction of 159 dwellings.

Next in line is a further award from Ismailia Misr Refrigeration Company for the building of a £1.3m. cold store in Egypt. It will be erected at Ismailia with work to begin in the next future and will be the third such structure to be built by Gleeson in the country.

Back to home construction and a £793,461 contract for 80 flats at Gleadless, Sheffield, to be built for the City of Sheffield. For Greater Manchester, 144 dwellings are to be modernised at Bennett Street, Hyde, at a cost of £561,864.

A cold store complex is contracted for with Gleeson by Woodward Distributors (Selatyn). It is being built at Oswestry at a cost of £800,000 and comes under the control of the company's Scarborough office.

Wessex Water Authority is to make major extensions to its Melksham treatment works in Wiltshire. The £200,000 job has gone to Gleeson Civil Engineering which will complete in 18 months.

In Bradford, Gleeson is to build 39 dwellings for a total of £521,000.

Stage I of the National Waterways Reclamation Scheme in South Wales is another project which has gone to Gleeson. No value has been disclosed for work which is for Mid-Glamorgan County Council Reclamation Unit, Cardiff.

## £4m. worth for Wimpey

TWO U.K. contracts worth over £3m. and another overseas worth about £1m. have been won by George Wimpey.

Largest of the U.K. awards is for the construction of 194 dwellings at Eastfield Road, Westbury-on-Trym, Bristol. Work is due to start in May. Architects are Leonard Manasseh and Partners.

For Plymouth City Council, Wimpey is to build a 750-pupil comprehensive school. It will consist of seven blocks of traditional construction and will cost about £1.3m.

In Port of Spain, Trinidad, Wimpey is just starting on a £1m. contract from the Government of Trinidad and Tobago for the construction of the Laventille junior school. This is due for completion in July, 1978.

## £1.2m. Laing facelift

LAING HAS been awarded two further contracts together worth £1.2m., to modernise 287 dwellings in Phase I of the Manchester City Council's Barlow Moor improvement scheme. The company has already rejuvenated 200 other homes bringing the total value of work to nearly £2m.

The Council will temporarily rehouse flat residents during the work-in progress and tenants of houses, where possible, will remain in residence and see their homes transformed around them.

## £5m. vehicle testing ground

A VEHICLE proving ground which will be out of sight of the general public is to be constructed for British Leyland Cars at the former RAF station at Gaydon, Warwickshire.

The £5m. contract has gone to Sir Alfred McAlpine and work is now getting under way with completion due in the autumn of 1978.

The 700-acre site will include road test tracks for emission, endurance, performance and braking tests, together with workshops, administration, block maintenance, servicing and track control buildings. Landscaping and screening by trees will be carried out in collaboration with the local authority and Forestry Partners (quantity surveyors).

The aim will be to ensure security and privacy and minimise noise.

The team of consultants appointed by British Leyland include Harry Weedon Partnership (architects), Freeman Fox and Partners (civil, structural, mechanical and electrical engineering) and L. C. Wakeman and Partners (quantity surveyors).



Impression of the new headquarters for Maog Contrails to be built by Modern Building Services of Bristol. The contract, worth £500,000, is due for completion in February next year.

wood and plastic. Now, the Steel Window Association is promoting a seminar, "Whatever Happened to the Steel Window?" around the country during 1978.

A recent report shows that steel windows are holding their own—the modern steel window does not rust; galvanising has been mandatory under BS590 for the last 30 years, and since then no single instance of galvanising breakdown has been recorded against a major window manufacturer of the Steel Window Association.

Colour finishing is one of the most recent developments—polyester powder coating promises a 30-year life. Factory finished windows, supplied in more than 100 special colours allow a significant saving on site programme times and can be supplied in a preferred size range or, alternatively, purpose-made sizes within the period to suit most construction projects.

## Venture in Victoria

CHANNERY HOUSE, Eccleston Street, London, S.W.1, is to undergo major refurbishment by Bovis Construction under a more than £2.5m. contract awarded by MEPC.

The removal of a combination of load-bearing brick walls and a structural frame will provide modern open-plan office area on five upper floors. A new structural steel frame will prop up existing floors, load-bearing brickwork will be removed from the 5th floor downwards, and a new structural topping will be given to the existing floor joists and breeze floors.

After a construction programme of 81 weeks (completion should be in September next year) there will also be shells for six shop units at ground and basement levels.

## Toughness of concrete increased

ALTHOUGH polypropylene fibres have been used over the past few years to increase the toughness of concrete, there have been disadvantages which have discouraged further exploitation.

However, one of Britain's youngest universities has spent almost a decade on researching the problems and now claims a strong, safe and economic alternative.

## Overseas deal

A NEW concrete roof tile plant using Redland machinery and equipment will be built this year in Portugal.

Redland-Braas-Bredero Europa (RBB) BV, based in Holland has signed a manufacturing licence and technical assistance agreement with Argibetao of Portugal.

Argibetao, a subsidiary of the Cimlanto Group, already has two tile plants in Portugal and the new RBB one will be the 17th in Europe covered by an RBB technical assistance agreement.

## Processes bulk waste

ONE MAN in a centrally positioned control room will press a button to dispose of up to 325 tonnes per day of domestic and trade waste at High Wycombe, Bucks.

All industrial waste generated in and around the area (estimated to be 80,000 tonnes per annum) will now be processed through an Anchorpak P.55 waste compaction system on Bucks Council's "High Heavens" new 66-acre disposal complex at Booker.

Waste discharged from vehicles entering the reception building will be engaged by a 30-cubic metre hopper ensuring minimum tipping delay even when containers are being changed, and the new waste compaction system will be able to handle even the most bulky waste items presented.

## Work in Wales and Devon

THE SOUTH west office of Holland, Hannen and Cubitts Construction has won contracts in Torquay and Cardiff together worth over £1m.

New printing works and offices will be at Torquay for the Western Times Newspaper Company, and in the same town, Cubitts will build 31 flats in two-storey blocks for Torbay Housing Society, in Cardiff, 25 old people's flats are to be built for the Hanover Housing Association and a showroom provided for Calor Gas.

## Project in Alberta

EXTENSIVE building operations could be undertaken as the result of the release of some 13,000 acres of land for development in Alberta.

Genstar (Site Generale Belge) and Atco Industries have reached an agreement in principle under which Atco will participate in the Alberta Land Development Company to which Genstar is contributing its land holdings, in various areas in Alberta.

Value of the land is put at \$190m. and one of the aims of the company will be to develop it with a view to planning both industrial and residential projects.

Apart from also, Mercantile Bank of Canada and Toronto Dominion Bank will participate in Alberta Land.

## Mobile crane will lift 1,000-ton loads

ONE OF the U.K.'s biggest crane hire and lifting specialists, G. W. Sparrow and Sons of Bath, Somerset, has ordered a 1,000-ton mobile crane from Leo Gottwald of Düsseldorf.

Cost of the crane, which will be available for hire both at home and overseas, will be over £2m.

It is claimed to be the biggest crane of its type in the world, offering exceptional lifting capacities at long radii and capable of raising loads up to a height of 300 metres, or well over 600 feet. The crane will lift 1,000 tons on a 29-metre main boom, 500 tons to a height of 58 metres and 200 tons on a 109-metre main boom.

Mr. George Sparrow, managing director, said he was confident that there will be a demand for

## Good progress on Suez tunnel

TARMAC Overseas and the Arab contractors Osman Ahmed Osman in a fully integrated joint venture going by the name of Osmaac are reportedly making good progress on the contract to drive a tunnel beneath the Suez Canal.

Work on the project, which will provide a vital link between the East and West Banks, started on the site in September 1976. The tunnel is located at El Shaila, which is just north of the town of Suez.

Known as the Ahmed Hamdi tunnel, the project will provide two carriageways in a tunnel which will have a driven length of 14 km and at its deepest point will be 40 metres below the present canal level. It is designed to provide the final link between Cairo, 135km to the West and the East Bank and will form an integral part of Egypt's comprehensive regional plan for the Suez zone, due to be carried out over the next 25 years and involving development of the Suez Canal.

Plans originally drawn up foresaw a series of five tunnels along the canal providing important links with the East Bank, although this has now been revised to three.

The tunnel is due to be operational by 1980 and although the contractors have encountered some substantial problems, in terms of ground conditions, mobilisation and communications, they are pleased with the rate of progress to date.

Since work started, 12m. cubic metres of earth have been excavated in preparing the approaches. A pilot tunnel is now being driven from a 42m. deep shaft to prove the ground beneath the Canal as boreholes could not be put down because of the likelihood of interfering with shipping lanes.

The project was originally costed at about £30m. but this sum is already out of date and a revised budget is now being formulated. The final cost is expected to be very much larger than the earliest estimate.

Major causes for the cost escalation have been the rate of inflation and a number of changes in the layout of the works. The contractors and the client, the

## Hunting in Liberia

A PROGRAMME of airborne spectrometer surveying to explore for uranium deposits in Liberia is being carried out by Hunting Geology and Geophysics.

The contract was awarded by a unit of Coastal States Gas Corporation of Houston, Texas.

Hunting is supplying geophysical equipment and personnel for two helicopters operating for four months in Liberia by Western Helicopters of Rialto, California.

## Looking up again

FOR THE past decade, steel windows seem to have been the sad Cinderella in a field whose runners include aluminium, soft-

## PLANT & MACHINERY SALES

Description	Telephone
1972 DECOIL, FLATTEN and CUT-TO-LENGTH line complete with automatic sheet stacking unit and coil reservoir. Max capacity 1525 mm wide x 25 mm gauge x 15 tonnes steel coil.	0902 42541/2/3 Telex 33644
8 BLOCK (400 mm) IN LINE, NONSLIP WIRE DRAWING MACHINE in excellent condition 0/200ft./min variable speed 10 hp per block (1968).	0902 42541/2/3 Telex 33644
24" DIAMETER HORIZONTAL BULL BLOCK ROTARY SWAGING MACHINE by Farmer Norton (1972).	0902 42541/2/3 Telex 33644
SLITTING LINE 500 mm x 3 mm x 3 ton capacity TWO VARIABLE SPEED FOUR HIGH ROLLING MILLS Ex. 6.50" wide razor blade strip production.	0902 42541/2/3 Telex 33644
MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.	0902 42541/2/3 Telex 33644
1974 FLY AUTOMATED COLD SAW by Hobbs & Lind with batch control.	0902 42541/2/3 Telex 33644
1000 CUT-TO-LENGTH LINE max. capacity 1000 mm x 2 mm x 7 tonnes coil fully overhauled and in excellent condition.	0902 42541/2/3 Telex 33644
1945 TREBLE DRAFT GRAVITY WIRE DRAWING machine by Farmer Norton 27" x 27" x 31" diameter drawblocks.	0902 42541/2/3 Telex 33644
STRIP FLATTENING AND CUT-TO-LENGTH LINE by R. M. Max capacity 750 mm x 3 mm.	0902 42541/2/3 Telex 33644
6 BLOCK WIRE DRAWING MACHINE equipped with 22" dia. x 25 hp. drawblocks.	0902 42541/2/3 Telex 33644
2 15 DIS MSA WIRE DRAWING MACHINES 5,000ft./Min. with spoolers by Marshall Richards.	0902 42541/2/3 Telex 33644
3 CWT MASSEY FORGING HAMMER—pneumatic single blade.	0902 42541/2/3 Telex 33644
9 ROLL FLATTENING MACHINE 1700 mm wide.	0902 42541/2/3 Telex 33644
7 ROLL FLATTENING MACHINE 965 mm wide.	0902 42541/2/3 Telex 33644
COLES MOBILE YARD-CRANE 6-ton capacity lattice jib.	0902 42541/2/3 Telex 33644
RWF TWO STAND WIRE FLATTENING AND STRIP ROLLING LINE 10" x 8" rolls x 75 HP. per roll stand. Complete with edging rolls, curbs head flaking and fixed recoller, air gauging, etc. Variable line speed 0/750ft./min. and 0/1500 ft./min.	0902 42541/2/3 Telex 33644
NARROW STRIP STRAIGHTENING AND CUT-TO-LENGTH MACHINE (1973) by Thompson and Munroe.	0902 42541/2/3 Telex 33644

## WANTED

MODERN USED ROLLING MILLS, wire rod and tube drawing plant—roll forming machines—slitting—flattening and cut-to-length lines—cold saws—presses—guillotines, etc.

## COMPANY NOTICES

REMOVED INCORPORATED NOTICE TO F.D.R. HOLDERS PAYMENT OF £0.00 No. 3

The directors of International Securities Company Limited have decided to remove the company from the register of companies in the United Kingdom.

NOTICE IS HEREBY GIVEN that the shares of the company are now being offered for sale.

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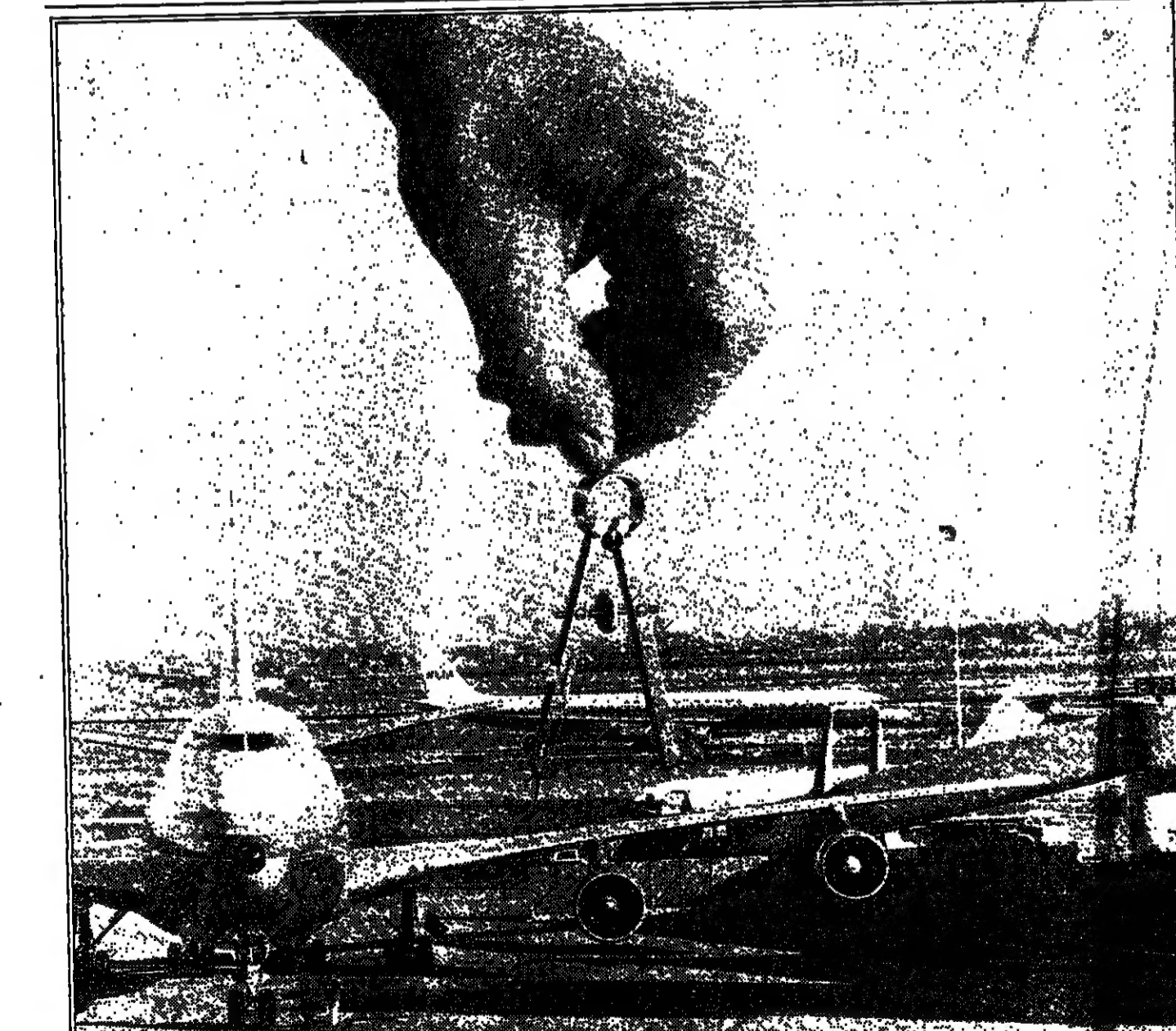
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## Planning a new airport? Let Stevin lend you a helping hand.

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Years of international experience. With all specialists and technical know-how available. Any time. Any place in the world.

Whenever there are big plans for a new airport, a new harbour, a new bridge, a new hospital, pipeline or road, there seems to be always someone who asks: "Why not bring in Stevin?" Giants at home. Growing abroad.

**Stevin Group**

Dredging and Reclamation Civil Engineering Roads and Asphalt Pipelines Housing and Construction

The turnover in 1977 amounts to £ 750 million, of which about 60% has been realized abroad.

Stevin has offices in: The Netherlands, U.K., Belgium, W. Germany, France, Antilles, Brazil, Algeria, Gabon, Nigeria, Saudi Arabia, Bahrain, Qatar, U.A.E., Oman, Malaysia, Indonesia and Australia.

Stevin Groep N.V., Kaap Hoornedreef 66, P.O. Box 9006, Utrecht, The Netherlands. Telex: stevi nl 40649, tel. 030 - 62 08 80.

## Bell & Webster steel and concrete industrial structures



The Belcon service to industry offers the design, manufacture and erection of precast concrete, structural steel or composite frames in Single, Double and Three storey construction.

Brochures and details of the Belcon service from: Bell & Webster Limited (Concrete Division) Belcon House, Essex Rd., Hoddeston, Herts. EN11 0DR. Tel: 57141. Telex 24142. Bell & Webster (Steel Structures) Limited, Salthouse Rd., Brackmills End Estate, Northampton NN4 0BD. Tel: 6044 62211. Telex 311264.

an Eleco Holdings Company

London, 6th April, 1978.

London, 6th April, 1978.

London, 6th April, 1978.



# Technical Page

## ENERGY

### Extracts heat from the roof

EXPERIMENTAL results to date for hot water services and either on a development programme as a feed to radiators or, which is about at its mid-term, through a heat exchanger, to indicate that with relatively low domestic warm air heating, cost additional equipment. It they could manage with a con-heating and hot water costs for siderably smaller store. The average house by about 50 per cent, compared with all electric solutions.

The work is in hand at the University of Aston in Birmingham. The Department of Physics and is being carried out by a group led by Dr. Ewart Neal, senior tutor in physics which has a grant from the Science Research Council with a further 15 months to run.

It is based on the use of the house roof as a radiation absorber, both directly from the sun and indirectly, a heat pump and a simple heat store.

Air from outside the house is sucked into the space between the tiles and roof felt and its temperature is raised by the absorption of sun heat from the tiles.

The heat pump extracts this energy and delivers it to a large volume of water—6,000 gallons, contained in a swimming pool, liner membrane under the floor, boards—which is maintained at around 55 deg. C. throughout the year. This serves as offtake both

for hot water services and either on a development programme as a feed to radiators or, which is about at its mid-term, through a heat exchanger, to indicate that with relatively low domestic warm air heating, cost additional equipment. It they could manage with a con-heating and hot water costs for siderably smaller store. The average house by about 50 per cent, compared with all electric solutions.

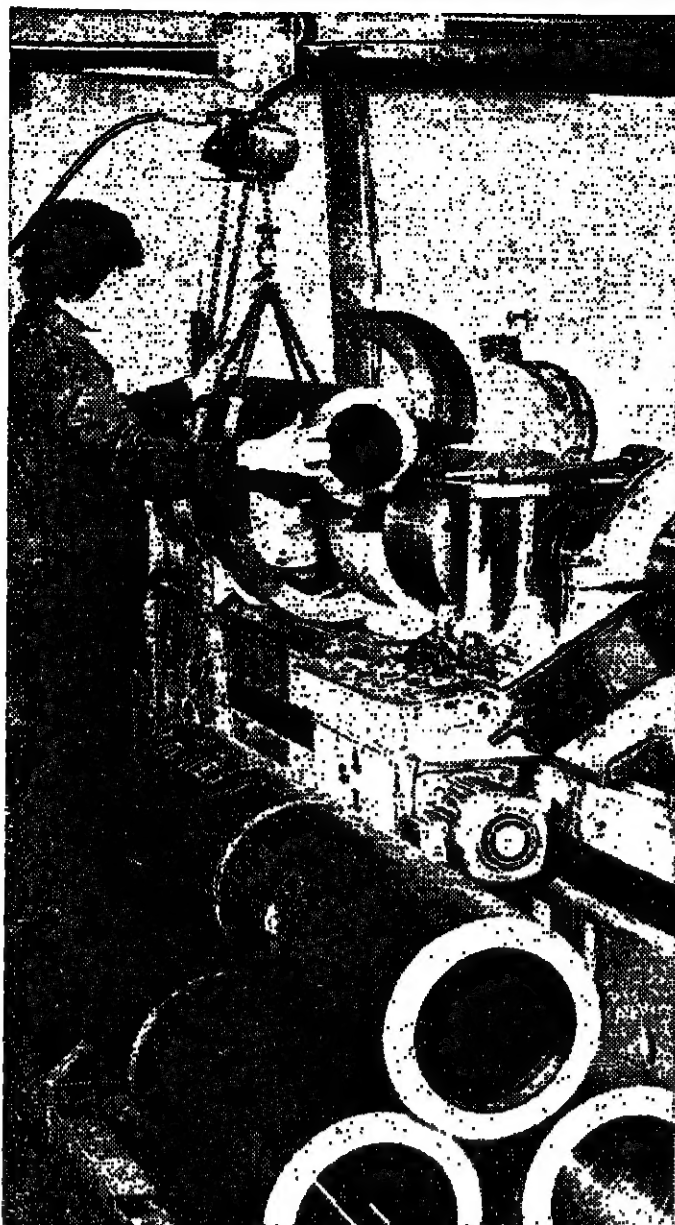
The developers believe that neoprene-coated container would be one solution, giving a life of at least 10 years with materials supplied as standard. Another method would be to use the salt solution idea which is being studied by GE in the U.S., and by a group led by Dr. Ewart Neal, senior tutor in physics which has a grant from the Science Research Council with a further 15 months to run.

Further information from Dr. Neal, Department of Physics, University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET. 021-359 3611.

## MAINTENANCE

### A sweeping difference

FIVE TIMES faster than a man cuts in labour, and savings in with a broom is the Cimex L60 the cleaning of windows, walls medium duty indoor/outdoor and other high level surfaces, vacuum sweeper. Its finger-tip it has a 7-litre capacity hopper control on the steering handle, a loading hopper of 45 litres the side brush clear of a surface capacity copes with refuse. Details of the company's comprehensive range of floor cleaning machines at Cray Avenue, Orpington, Kent BR6 3PX. 26731.



## INSTRUMENTS

### Vickers in microscope sales push

ALTHOUGH THE bedrock of the company's business may well remain in such areas as tank periscopes, gun sights and similar military optics, Vickers Instruments continues to seek new markets for its high technology microscopes and, since the acquisition of Joyce Loebel last year, in microdensitometers.

A good example is the development work now in progress with International Research and Development Company, with financial support from the EEC, on an instrument to identify and count asbestos fibres in industrial atmospheres. Specific volumes of air will be drawn through a membrane and a special microscope attachment will enable an operator to count the collected fibres manually or automatically.

The Joyce Loebel company is also researching the asbestos problem in conjunction with Manchester University using its Magiscan image analysis system.

In the field of exports the Joyce Loebel flat bed microdensitometer has met with particular success in the USSR where business has topped £1m.

Of some significance is the fact that although the Russian industry has developed what Vickers describes as "a very similar" instrument, it seems that users there still prefer the U.K.-made unit.

An equivalent effort is now being made in the U.S. where the Vickers subsidiary company is to provide assistance.

In supplying the electronics industry the company reckons to be market leader in image shearing microscopes. Instruments that are used in integrated circuit "chip" manufacture. "Shearing" refers to a split image technique that allows measurements to a fraction of a micron by precise line-up of the image edges as they cease, or subject to identical shocks during transit.

Vickers—already claiming about half the "silicon valley" market in the U.S.—is about to

announce an automatic version of the unit in which television techniques and digitisation of the image are used to detect these alignments automatically and display the readings.

The company sees these achievements as a vital way of keeping the U.K. in the optical instrument business, the "college bench" microscope market having been scooped by low cost producers.

It has recently been phasing out its "bottom end" ranges of instruments, at the same time striking up cross-franchise agreements with companies such as Union Optical and Nikon in Japan.

Apart from Joyce Loebel's specific market in microdensitometers, (it has about 65 per cent of world business), Vickers is to-day essentially addressing the £30m. world market in advanced microscopes costing over £2,000.

### Tells when parcel is dropped

PRIMARILY designed to monitor the shocks to which goods are subjected during transit a new device is also suitable for the measurement of ground vibrations due to heavy traffic, pile driving, seismic activity, etc.

Type 2503 Bump Recorder consists of a portable battery-operated measuring instrument combined with a strip recorder, both of which are housed in an exceptionally sturdy case.

A triaxial accelerometer which simultaneously monitors shock in three mutually perpendicular directions is used to resolve random shocks into three vectors, the signals from which are summed to produce a single value representing the shock level.

This accelerometer can be mounted either on the transported object under observation and connected back to the instrument by cable, or alternatively mounted inside the instrument case itself when the instrument is considered to be sufficiently near the transported object to be subject to identical shocks during transit.

E and K Laboratories, Cross Lanes Road, Hounslow TW3 2AE. 01-570 7774.

## MACHINE TOOLS

### Miller has useful options

UNIVERSAL MILLER Induma 2040 from RK International is a 12½ hp machine with direct drive from the electric motor into the gearbox. This provides 12 speeds in the range 30 to 1,500 rpm.

An independent 2½ hp motor powers the feeds. Eighteen feed rates are available on each axis, 10 to 300 mm/min. on both horizontal axes and 4 to 320 mm/min. on the vertical axis. Rapid traverse rates are 2,500 mm/min. horizontal and 1,000 mm/min. vertical. So that climb-milling operation can be carried out, a back-lash eliminator is fitted to the longitudinal screw.

Maximum table movements are 1250mm. longitudinal, 570mm. cross and 300mm. vertical.

Standard equipment on the Tools, Europa Trading Estate, Induma 2040 includes coolant system, a milling arbour with

## COMMUNICATIONS

### Short wave scrambler

UNVEILED by Marconi at the Communications '78 exhibition is a cryptographic equipment with a low enough bit rate to allow "scrambled" speech to be sent over a high frequency radio link.

Called Cryptex, it is compact enough to permit mounting in a vehicle (in a Clansman radio case), or it can be accommodated in 19-inch rackings.

Elements of the unit are a device for converting speech to a digit stream and vice versa, a cryptographic unit which rearranges the stream so that to an unauthorised listener it would appear to be random, and a modem which turns the digit stream into a series of 24 tones for modulation on to the HF carrier.

The significant development is that although the bit rate is only 2400 bits/sec., the quality of reproduced speech is comparable to that of speech digitisers working at two times the speed. Thus the system can work over

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**A FINANCIAL TIMES SURVEY**

**MECHANICAL HANDLING**

**MAY 2 1978**

The Financial Times proposes to publish a survey on Mechanical Handling. The provisional synopsis and date are set out below.

**INTRODUCTION** The growth of the industry and its current problems, largely generated by the lingering recession, at home and overseas.

**THE WORLD INDUSTRY** The structure of the world mechanical handling industry—the role of the multi-national companies.

The following articles will discuss mechanical handling techniques and products in specific environments.

**THE WAREHOUSE**

**THE FACTORY**

**THE CONSTRUCTION/BUILDING SITE**

**DOCKS AND PORTS**

**AIRPORTS**

**ROAD VEHICLES**

**SAFETY AND TRAINING** This aspect has become even more important in the wake of the Health and Safety at Work regulations.

**COMPUTERS** There is growing use of computers to control handling equipment.

**INDUSTRIAL STRATEGY** Various sectors of the mechanical handling industry are involved in the industrial strategy programme. Its aims and achievements so far.

**PALLETS** An essential element in modern materials handling. The efforts being made to cut the cost to industry of pallet losses.

**NATIONAL MATERIALS HANDLING CENTRE** The Centre is now seven years old. Set up to provide a modest information and advice service, it has developed substantially.

**RACKING SYSTEMS** Modern racking techniques have become an integral part of warehouses and each system must be related to the type of mechanical handling techniques being used.

**THE INSTITUTE OF MATERIALS HANDLING** Set up in 1952, it aims to promote the science of materials handling and to further the knowledge of that science among the public generally.

**CRANES AND HOISTS** The crane and hoist section of the industry will also be given specific coverage.

For further details on the editorial content and advertising rates please contact:

Nicholas Whitehead  
Financial Times, Bracken House,  
10 Cannon Street, London EC4A 4BY.  
Tel: 01-248 8000, Ext. 7112.

**FINANCIAL TIMES**

EUROPE'S BUSINESS NEWSPAPER

The content and publication date of Surveys in the Financial Times are subject to change at the discretion of the Editor.

## COMPUTING

### Displays to cost less

FIRST OFFERINGS in Britain from the Israel-based Elbit Computers company of Haifa, which has set up affiliates in the U.K., Germany and France, are two high performance display terminals offered at prices likely to cause some alarm among the competition.

The terminals are compatible with IBM controllers and they are backed by development experience which has enabled the company to sell some 8,000 units into world markets.

Elbit later this year will be launching in Britain its PACT small business system, and for the current launch programme in Europe expects to spend something like £2m.

The company is also making a name for itself as a builder of sophisticated equipment to "bespoke" designs.

Elbit Data Systems operates from Copthall House, St. Ives Road, Maidenhead, Berks.

### Control of power network

EGYPTIAN Electricity Authority (EEA) has selected Control Data Corporation as prime contractor on a \$37m. computer-based system to monitor and control Egypt's major electric power network, in what could be the biggest civil computing award to date.

Under a contract from the EEA, Control Data will install an energy control system in the National Energy Control Centre in Cairo that includes two large-scale CDC Cyber 173 computers, four Cyber 18 computers, related peripheral equipment and multiple terminals to be used to monitor and control the generation and transmission network.

Control Data will supervise activities of the project's major sub-contractor, GE (U.S.A.) which will install a \$10m. communication system, using a combination of power-line carriers, telephone and microwave products.

CDC is on 01-830 7344.

### Down-range financial packages

FINANCIAL reporting software developed originally for users of large computers by Package Programs is being adapted for small users who have previously had to pay excessively for custom-built software.

With MMS general ledger, accounts receivable and accounts payable packages available for IBM System 3 and ICL 2903 computers, developments are currently under way for systems to run on machines from Burroughs, Digital, Data General, Hewlett-Packard, Honeywell and Interdata. The needs of IBM System 32 and System 34 users will also be met in the near future.

PPF is aiming at the 5,000 small business computers in the U.K., a sector of the market which is growing fastest of all.

Package Programs is at 91, Blackfriars Road, London SE1 8JW. 01-633 0121.

## In Japan, you've got to play your cards right.

The Japanese way of life is very different from ours. And business etiquette is an important aspect of that way of life. Formalities are very precise and are part of a ritual that is both charming and obligatory.

At meetings and receptions, for example, you must say it with cards. Business cards. The exchanging of them is as essential as a handshake. And more than just good manners.

In fact, it's a very useful practice which helps you to pronounce difficult names and to discover the status of the people you meet. Through the JAL Executive Service, name cards—in your own language and in Japanese—can be supplied quickly and inexpensively.

All you have to do is fill in a request form from your nearest JAL office. And then there's the authoritative book 'Business in Japan'. This book will ensure you get valuable insight into Japanese business practice and procedure, including etiquette and behaviour.

An exclusive paperback edi-



tion is available only from JAL offices.

These are just two of the ways that you can get help through the JAL Executive Service, the first and still the most comprehensive package of business aids for the executive visiting Japan.

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a week from Europe and JAL's incomparable in-flight service, it's no wonder JAL fly more Europeans to Japan than any other airline.

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Position \_\_\_\_\_

Company \_\_\_\_\_

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## CONTRACTS AND TENDERS

## STATE OF ISRAEL

MINISTRY OF LABOUR & SOCIAL AFFAIRS  
INDUSTRIAL DEVELOPMENT PROJECT—  
VOCATIONAL/TECHNICAL TRAINING  
JERUSALEM, P.O.B. 915



## INTERNATIONAL COMPETITIVE BIDDING FOR EQUIPMENT

1. The Government of Israel—Ministry of Labour—plans to improve and expand its system of Vocational/Technical training institutions and for this purpose has received a loan from the International Bank of Reconstruction and Development (IBRD).
2. The Directorate of the Project announces the publication of the public international tender No. 14.01.T for the supply of equipment in the technical/vocational branch of Electricity.
3. Manufacturers and/or suppliers of all member countries of IBRD, and of Switzerland, are eligible to take part in the bidding and are invited to participate.
4. Tender documents may be obtained from the Directorate of the Project at the above noted address, against a payment by bank order or cheque for the sum of thirty (30) U.S. Dollars, made out to the Ministry of Labour, Israel. Such payment will cover this tender and all future tenders published within the framework of this project.
5. Tender documents will be forwarded by registered air-mail to the applicant complying with paragraph 4 above. The completed proposal, despatched to the Directorate in the special envelope provided, and in strict accordance with the general instructions to bidders (which will be forwarded to the applicant simultaneously with the tender documents) should reach the Directorate not later than 1200 hours on June 16, 1978. Proposals arriving later than the time limit fixed will not be considered and will be returned unopened to the bidder.
6. The Directorate reserves the right to accept any proposal for any individual item or items or all the items listed, to increase or decrease the quantities to be purchased and to reject any or all of the bids received.

NISSAN LIMOR  
Project Director

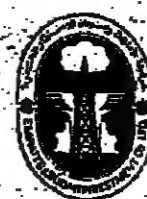
Democratic  
Republic of Somalia  
Mogadishu Water  
Supply Stage 1 -  
Expansion Drilling  
of Boreholes

The Mogadishu Water Agency invites expressions of interest in tendering, from suitably qualified and experienced drilling contractors, for the drilling, casing, screening, developing and yield testing of eight production boreholes in an extension to an existing wellfield. The location of the wells is approximately 20 km north of Mogadishu.

The wells shall be drilled to 310 millimetres diameter and the total length of drilling will be of the order of 1500 m in the strata to be drilled comprises coarse grained and partially cemented sands overlying limestone. The wells will be screened and cased, with imported gravel pack and subjected step draw down and recovery tests after development.

Expressions of interest should reach the consulting engineers Sir Alexander Gibb and Partners (Africa), P.O. Box 30020, Nairobi, Kenya, not later than Friday, 5th May, 1978.

## CALL FOR TENDER



## EMIRATES &amp; SUDAN INVESTMENT CO. LTD.

TENDER FOR THE CONSTRUCTION OF 200 WAREHOUSES  
(RED SEA REGION)

## PHASE ONE: 34 WAREHOUSES AT PORT SUDAN

1. The Chairman of the Board of Directors, Emirates & Sudan Investment Co. Ltd., invites Tenders from competent contractors for the construction of 34 "Thirty four" Warehouses complete at Port Sudan (D.R. of Sudan) as phase one from the total number above.
2. The Tender Documents "in English only" can be obtained from the office of the Managing Director of the Emirates & Sudan Investment Co. Ltd., 16 Babiker Bedri St., P.O. Box 7036, Khartoum, Telex 524 EMSU KM, Telegraphic Address: EMSU Khartoum, during office hours against payment of L.S.100 (one hundred Sudanese pounds = £145 US\$290) non-refundable.
3. Tenders will be accepted for 4 warehouses as a unit and Tenderers should deposit a sum of L.S.4000 (Four Thousand Sudanese pounds) or its equivalent in other convertible currencies either by certified cheque or a letter of guarantee from a reputable bank valid for at least three months after the closing date as a preliminary deposit in the name of the Managing Director, Emirates & Sudan Investment Co. Ltd., for each unit. Tenderers for more than one unit should multiply their deposit accordingly. Separate offers per unit for lighting and fire systems may be added as option.
4. The successful Tenderer/Tenderers shall be asked to sign formal contract within two weeks after being notified of the acceptance in writing and to complete the deposit to 10% (ten per cent) of the total value of the contract either by a certified cheque or a letter of guarantee from a reputable bank valid for one year after handing over all works. Other forms of guarantee may be required for longer period. Any other plans for payment that may lead to the reduction of the cost could be proposed by the tenderers. If the contractor fails to sign the contract within the specified time, he shall lose his right to recover the preliminary deposit.
5. The preliminary deposit shall be refunded to the unsuccessful tenderers two weeks after the firm award of the contract.
6. Tenderers shall state clearly the following:
  - a) The names, qualifications, and experience of engineers and technicians who will be responsible for the execution of the works.
  - b) Examples of similar projects they have executed.
  - c) A detailed programme specifying the progress of the works and the time required for the completion of all works specified in the tender and shown in the drawings, as from the date of the signature of the contract.
  - d) A list of equipment and machinery in their possession necessary for execution of the works.
7. The supply of all materials, equipment and machinery whether local or imported necessary for the execution of all works is solely the responsibility of the Contractor.
8. Tenders shall be valid for at least three months after the closing date mentioned in para (12) below. The offer may be based on the detailed alternative or for an accepted alternative to be presented in detail to the Managing Director.
9. All information relevant to the tender shall be submitted in English Language.
10. For imported items, The Emirates & Sudan Investment Co. Ltd. will directly pay all insurance, clearance, customs and other Port charges.
11. Foreign Currency will be paid directly from The Emirates & Sudan Investment Co. Ltd. reserves with The National Bank Abu Dhabi.
12. Tenders should bear the prescribed stamp duty and should be addressed in sealed envelopes bearing the words (TENDER FOR THE CONSTRUCTION OF WAREHOUSES AT PORT SUDAN), to The Managing Director, Emirates & Sudan Investment Co. Ltd. and should be delivered to the Tenders Box at the Company's Head Office, 16 Babiker Bedri St., 3rd Floor, Khartoum, Sudan, not later than 12.00 Noon Sudan Time Tuesday the 20th of June 1978.
13. Any tender which does not comply with any of the above-mentioned requirements will be rejected.
14. The Chairman of the Board of Directors, Emirates & Sudan Investment Co. Ltd., is not bound to accept the lowest or any other tender.

TURKISH STATE RAILWAYS (TCDD)  
THE CHAIRMANSHIP OF CENTRAL  
PURCHASING AND SALES COMMISSION

Tenders are invited for 1,500 tons of profiles for steel sole plates of which the technical features are written in the specifications

1. The above materials are to be purchased by receiving bids from the countries who are members of the World Bank (IBRD).
2. The specifications prepared for this purpose in Turkish and English can be purchased from TCDD's Central cash office in Ankara and Sirkeci cash office in Istanbul with a price of TL.250.
3. The bids should be received by or handed in person to our commission not later than Thursday, May 25, 1978, 15.00 hours, for a meeting at TCDD Supply Department on that date.
4. The bids should be submitted in seven (7) copies (together with their Turkish versions, if possible), and the words "TCDD İstemesi Genel Müdürlüğü Merkez Alım ve Satım Komisyonu Başkanlığı Gar-ANKARA/TÜRKİYE" and "This is an offer for the material subject to IBRD's loan" and also subject of the Bid should be written on the envelopes containing the bids.
5. TCDD shall be completely free to award Contract (S) for all or some of the items to any bidder at its sole discretion.

## Kingdom of Thailand

## NOTICE TO

## CIVIL ENGINEERING CONTRACTORS

The Government of the Kingdom of Thailand has received a loan from the World Bank to help finance construction of three main sections about 140 km and expected to cost over US \$ 50 million equivalent. The construction will be divided into 3 contracts to be awarded in 1978 and 1979 and will include about six million cubic metres of earthworks, one million square metres of asphalt paving and six thousand linear metres of bridges.

Construction firms from member countries of the World Bank and Switzerland are invited to indicate their interest in prequalifying for bidding on the above works. Replies, by letter or cable, should be addressed to:

DIRECTOR GENERAL  
DEPARTMENT OF HIGHWAYS,  
SRI AYUTHAYA ROAD,  
BANGKOK, THAILAND.

Replies should be received by 15th May, 1978 and questionnaires will then be sent for preparation of prequalification applications.

## INVITATION TO TENDER

The Posts and Telecommunications Corporation of the Republic of Ghana once again invites tenders, who will be limited to nationals of countries of the International Bank for Reconstruction and Development (IBRD) and Switzerland only for parts of

## NATIONAL TELECOMMUNICATIONS EXPANSION PROJECT

The invitation to tender is for the following two sub-projects—

Sub-project A:  
Installation on turn-key basis of new automatic telephone exchanges (closed programme control) which comprise one trunk exchange with manual switchboards (tertiary centre), for local exchanges equipped with 15,000 lines in total in multi-exchange areas, 5 local exchanges equipped with 2,500 lines in total together with manual switchboards (primary or secondary centres in single exchange areas), and power equipment.

Sub-project B:  
Procurement of 170 sets of electronic teleprinter.

Prospective tenders may obtain copies of the specifications against payment of two hundred U.S. dollars (\$200), per complete copy, daily between 09.00 hours and 16.00 hours GMT from 30th March, 1978, to 15th May, 1978, at the address given below:

WORLD BANK PROJECT OFFICE (Room 312, 3rd Floor),  
THE POSTS AND TELECOMMUNICATIONS CORPORATION BUILDING,  
ACCRA, NORTH, ACCRA, GHANA.

The closing date of submission of the tenders will be at 11.00 a.m. Ghana time on 25th August, 1978.

Director General,  
The Posts and Telecommunications Corporation of the Republic of Ghana.

## CONTRACTS AND TENDERS

## APPEAR EVERY MONDAY

For further details contact:

FRANCIS PHILLIPS on 01-248 8000 Ext. 456.

# SOCIALIST PEOPLE'S LIBYAN ARAB JAMAHIRIAH HOUSING MUNICIPALITY

## ANNOUNCEMENT OF AN INTERNATIONAL TENDER FOR THE BUILDING PROJECT OF THE AL-MAHARI AL-JADID HOTEL IN TRIPOLI

The Committee for the Al-Mahari Al-Jadid Hotel building project in Tripoli publicly announces its invitation to international tenderers, national, general and stock companies, as well as international companies having hotel construction expertise in building 4 or more star hotels—and this shall be in accordance with the following terms:

1. The general conditions, specifications and drawings related to the project shall be obtained from the Headquarters of the Committee for Al-Mahari Al-Jadid Hotel at the Housing Municipality in Tripoli for the sum of 500 (five hundred) Libyan Dinars only, which shall be paid into the public funds at the offices of the Treasury in Tripoli.
2. The tender shall be in two parts:
  - a) Construction and machinery
  - b) Furnishings and equipment.
 The tender shall be offered for either one or both parts.
3. The company offering the tender shall send with its tender a vitae detailing its previous experience in such works, carried out either in the Libyan Jamahiriah or outside it.
4. The international companies participating in this tender must be represented by Public Agencies or Authorities from the National Sector or Companies of the Public Sector. An address at which the tenderer can be contacted shall be given and the contents of any correspondence with him shall be considered valid. In the event that the tenderer is an agent, he shall enclose with his tender a certified Power of Attorney from his Organisation, together with a listing of the rights and limitations of his agency; the names of the persons directly responsible for the execution of the terms of the Contract; the payments made and the receipts received and signed by the Company,

as well as specimen of signatures put to copies of both the Contract and the Power of Attorney.

5. An official copy of the Company's Contract of Establishment and Articles of Association shall be enclosed with the tender. These documents must meet all requirements and procedures stipulated by Law and the By-Laws.
6. A tenderer shall, by means of a Declaration to be enclosed with the tender, be bound to adhere to the terms of the Israeli Boycott, and in the event of violation of the Declaration the Committee shall have the right to cancel the Contract by sending a registered letter of cancellation. The tenderer shall be without right to demand compensation.
7. If the tenderer has previously carried out works in the Jamahiriah, the tenderer shall produce a certificate of taxes due to the Tax Authorities.
8. An initial deposit of the sum of 100,000 (one hundred thousand) Libyan Dinars shall be enclosed with the tender. This deposit shall be valid for a period of six months from the date of the opening of the envelopes, and shall be presented in one of the following forms:
  - a) A bank draft certified by one of the banks operating in the Jamahiriah
  - b) A letter of guarantee issued by one of the banks operating in the Jamahiriah—guaranteeing that the contractor shall maintain the same prices of his tender for a period of six months from the date of the opening of the envelopes.
9. In the event that the chosen tenderer does not sign the said Contract within two weeks of the date of his being notified officially of the acceptance of his tender, the deposit shall be retained.
10. Tenders shall be presented to the Committee for the Al-Mahari Al-Jadid Hotel at its Headquarters in the Housing Municipality in Tripoli

on a Tender Form stamped by the Municipality and signed by the Chairman of the Committee. The tender shall be handed into the Committee Treasurer, and a receipt shall be given in return. The tender shall be in a sealed envelope, sealed with red wax, and on it shall be written: Enclosed is the Tender for the Al-Mahari Al-Jadid Hotel Project.

11. The final date of acceptance of tenders shall be the 30th April 1978 and no tender for whatever reason presented thereafter shall be considered.
12. The tenderers may attend the procedure of the opening of the envelopes, which shall be at exactly 11 o'clock on the said date.
13. The accepted tenderer shall, within fifteen days from the date following the date of the letter sent to him by registered post notifying him of the acceptance of his tender, pay a deposit equivalent to 5% (five per cent) of the total value of the works he has been commissioned to do. He may also pay the remainder of the provisional deposit so that it equals the value of the required final payment. The Committee may, by sending a registered letter and without need for taking any further steps, cancel the Contract and retain the provisional deposit.
14. Any international company participating in this tender must be already registered in the Registry of International Contractors at the Housing Municipality in the Jamahiriah and this shall be observed in ample time before the procedure of the opening of the envelopes.
15. The Committee for the Al-Mahari Al-Jadid Hotel Tender shall have the right to either accept or reject any tender offered without giving any reasons for taking either decision.

Signed: The Committee for the Al-Mahari Al-Jadid Hotel Tender in Tripoli.



## The Executive's and Office World

EDITED BY CHRISTOPHER LORENZ

GIVING UP smoking is potentially a great British hobby. When Granada television's Reports Action foolishly offered free kits to help give up smoking it was inundated with over half a million inquiries. And official health bodies estimate that over 60 per cent of Britain's 19m. smokers would like to give up, only they don't or can't.

Will-power is clearly not enough. People who do give up on their own seem to go on wanting cigarettes for the rest of their lives. One man at the Financial Times who gave up smoking seven years ago idles away his spare time looking at pipes in the local tobacconist. There is a great potential market for anyone with a foolproof way of helping people stop smoking—and to stop wanting to after they have kicked the habit.

There is certainly no shortage of patent medicines, and methods, from hypnosis to filters. All claim extraordinary degrees of success, although often they involve a great deal of effort on the part of the aspiring non-smoker.

In America, aversion therapy has become a fashionable way of giving up. A number of clinics have sprung up in California, in particular. Their therapy is based on research work done at Stanford University, and they advertise a success rate of 80 per cent.

As with most things American, aversion therapy has found

its way to Britain, brought back by Ian Hutchison, a former stockbroker. He set up his Mayfair Smokers' Clinic at the beginning of this year—within puffing distance of Bond Street.

As a business it could hardly be called a runaway success. Hutchison's biggest problem is persuading a sceptical British public that the treatment actually works. Even though you don't pay anything unless it works he is still asked, "Is it a con?"

The treatment lasts for an hour a day for five consecutive weekdays, during which time Hutchison says he can turn you into a non-smoker. If he succeeds, he will relieve you of between \$85 and £125, depending on how many cigarettes you used to smoke. If the system fails to work, you pay nothing. If it does, you pay on the last day. If you do pay, but then relapse within a year, you are entitled to a free refresher course. For the impoverished he offers credit terms—a sort of "pay as you don't smoke."

The system concentrates on the psychological urge to smoke rather than the physical: in spite of the fact that nicotine is highly addictive, it only takes two days without cigarettes for physical craving to disappear, according to Hutchison. The conditioning consists partly of smoking extremely fast, and partly of getting very small electric shocks when smoking normally. Hutchison boasts that on the Wednesday "The whole

## A shocking way to stop smoking

By Jason Crisp

attitude of the smoker changes... cigarettes are no longer his little friends."

I told Hutchison I thought that this all sounded an unlikely tale, that he would not convince very many people to start the course, and from those he did, he would not collect any money at the end of the week—perhaps he should think about stock-broking again.

"Find somebody at the Financial Times who genuinely wants to give up smoking and he or she can try the course," he retorted.

Nobody at my office seemed convinced that this treatment would work, so, going well beyond the call of duty, I offered myself as a guinea pig. I did not really meet the conditions because, although I thought I ought to stop, I did not particularly want to, even though my 60 a day were costing me £600 a year.

First task was to answer a detailed questionnaire, which supposedly explains why you

smoke. Apparently my 60 king-size a day were being consumed not because of the intolerable stresses thrust upon anyone working on the Management Page—nor for great paroxysms of delight—but through sheer habit. "You'll be easy then," he said. "You tell everybody that," I said.

For the five days before the course started I had to count each cigarette before I smoked it on a small counter which Hutchison had given me. This, he told me, was to make me more aware of smoking.

On the Monday morning, having chain smoked in case they are my last, I arrive at the clinic. Hutchison dons an official looking white coat and leads the way to a very small room. It is not a beautiful sight at 9.30 on a Monday. The room stinks since there is a mountain of butt ends and ash piled high on a low table.

On the walls are a number of the more sophisticated and romantic cigarette ads. We sit



It's no good—I can't run another session without a flag!

could think of little but you I would think there was something seriously wrong. Just like the previous day, I was going through hell.

On Wednesday morning on my way to the clinic, I decided that my first two days of not smoking—outside the clinic—were thanks to my own efforts, and had little to do with Hutchison. After all this selfless effort, I was wary when Hutchison insisted that I smoke three cigarettes, inhaling properly.

My reaction was that my own brand tasted strange; I also had a strong feeling of nausea. A curious side effect, and one which is quite common apparently, is that I remem-

bered my first ever cigarette in the cellar of a friend's house at the ripe old age of eight. The taste was much the same twenty years later.

And while I still felt weak at the knees, literally, the heartless Hutchison bombarded me with all the statistics about the poisons in cigarette smoke. That lunchtime I braved a press conference and in spite of a haze of smoke and a pin and tonic I was no longer bothered. By evening, though, I found a meal out with my wife and two good friends was spoiled, as all three are heavy smokers. I looked on with amazement as they put these noxious burning things into their mouths between every course. Such hypocrisy—three days previously I'd have done the same thing.

Since then—just over three weeks ago—I have had no wish to smoke, although I still think about it. The biggest problem has been what to do with my hands. Smoking, I discover, was very time consuming, almost a hobby. The neighbours have been quite startled by the ferocity with which I have attacked my previously untended garden.

But the worst side effect, warns Hutchison, is that the cure became very boring. All they can talk about is how they gave up.

The Mayfair Smokers' Clinic is at 36a Davies Street, London W1Y 1LH. 01-493 5995.

## The case for perpetual debt

Within the next two or three years, industry in both the U.S. and Britain will have to repay the massive level of loans it raised in the late 1960s, when conditions were particularly conducive to debt financing in a wide variety of forms. These loans will undoubtedly need to be replaced in large part by new debt. A good many ways of coping with this problem are still available in the U.S. British companies are less fortunate; given the conditions in the capital markets, it is improbable that the range of loan, debenture and other types of stock previously employed will be used again to re-finance current debt. In spite of these differences, finance directors in both countries will have to apply their minds to the situation with increasing vigour. JOEL STERN advocates an approach which would circumvent many of these problems.

MANAGEMENT has good higher share price financially, reason for its usual abhorrence sophisticated investors who of debt repayment. First, where dominate the office-setting the tax deductibility of interest mechanism on debt, capital makes debt less expensive than markets must believe that pay-equity, employing debt to markets becoming due will be finance expansion reduces the replaced by new debt. Other cost of acquiring capital and, wise, the annual tax rebate for hence, increases the firm's share interest costs from the Govern-ment. However, to sustain a ment will be reduced, thereby

increasing the cost of capital from what it otherwise would have been, and resulting in a depressing effect on share price.

Second, most companies that experience hardship during economic recessions have their difficulties accentuated by the cash drain of scheduled debt repayment. Even successful companies borrow less than they would like over the business cycle simply because they need to protect themselves against unexpected shortfalls in the cash flow available for debt amortisation. Almost all firms attempt to reduce their average annual debt payments by lengthening the average maturity of their debt, that is, by borrowing long-term funds—the longer the better.

Lenders, too, do not want debt repaid, and for good reasons. There are several specific ones, apart from the fact that lending money is their business.

First, by lending long-term they save the periodic cost of seeking a new borrower. Also, when the borrower repays the debt the lender's income is reduced. Thus, the lender requires debt repayment only to "see if the borrower can do it." The only time a lender really wants debt repaid is when he knows the borrower cannot do it.

## Guarantee

Since borrowers and lenders both prefer no debt repayment (they both save money and the borrower's financing flexibility is enhanced) the obvious question is: What prevents these parties from designing and implementing the best debt instrument—perpetual debt?

At the outset, I should attempt to absolve my bank and other commercial and clearing banks from responsibility. By their very nature, these banks do not lend extremely long-term funds. Aside from seasonal or other temporary needs, expanding companies borrow from banks until the amount of their short-term debt is sufficiently large to minimise the unit cost of underwriting it in the form of long-term debt. Because short-term lenders do not purchase a guarantee from long-term lenders to assume the short-term loans at some future date, the banks require debt repayment as a policing device to ensure sufficient stability and, thus, ultimate long-term financing.

However, this reasoning is inadequate. If borrowers and lenders benefit from perpetual debt, bankers should purchase a guarantee from long-term lenders to assume, at some future date, the short-term debt the banks have granted. Alter-

natively, the banks should alter their own form by, in effect, becoming department stores offering financial services, thereby accommodating all borrowers' preferences, ranging from short-term debt to perpetual debt.

The two most popular reasons for finite debt are fears of mistakenly forecasting inflation and the need periodically to review restrictive loan covenants. First, many borrowers and lenders fear their inability to predict the future rate of inflation. They therefore appear unwilling to borrow or lend perpetually at a constant interest rate. They also argue that loan covenants which restrict management's operating and financial decisions should not be set in perpetuity, because the firm's credit quality may change, thereby requiring different restrictions. Thus, new debt agreements between

borrowers and lenders periodically replace old agreements, accompanied by more or less restrictive forms.

The first reason is erroneous. The second can be ignored by slightly adjusting the form of loan agreements' restrictive covenants.

On forecasting the rate of inflation, which is a principal determinant of the interest rate on debt, there are some lenders and borrowers who believe they can adequately forecast inflation. This is especially so in the U.S., where most long-term debt is negotiated on a fixed-interest-rate basis (for example, American Telephone and Telegraph borrowed 40-year money at a fixed rate even at the peak of interest rate in 1974).

However, those who cannot or choose not to forecast inflation rates—this particularly applies in the U.K. and other European

countries, Hong Kong and Australia—link the interest rate to a fluctuating market interest rate, such as the London Inter-Bank Offered Rate, LIBOR. In the U.S., interest rates step in the public capital market step in increasing with maturities 18 to 23 years in the future, which means that beyond 23 years, at most, all debt is equally expensive, even with maturities up to 40 years. In the U.K., interest rates peak at maturities as small as eight years, in 1985. Thus, perpetual debt and medium-term debt cost the same.

Writing indenture restrictions for a perpetual debt instrument could present borrowers and lenders with a serious problem. This is because many restrictions are normally stated in absolute, not relative, terms. Examples of this are limits placed on cash dividend payments to conserve corporate

capital and the maintenance of minimum working capital (that debt-to-total capital could vary from, say, zero to 50 per cent, even, even those restrictions can easily be expressed on a relative basis as ratios to total assets or revenues).

A key issue for perpetual debt is how to protect the lender from deterioration in the borrower's credit quality, and the borrower from excessively restrictive limitations as his credit quality improves.

The obvious advantage of finite debt is that it is renegotiated at maturity, offering a potential benefit to both borrower and lender; whereas for perpetual debt, no such renegotiation occurs. However, this benefit is costly. Each renegotiation is accompanied by an underwriting cost.

For perpetual debt, the underwriting cost can be saved and the renegotiation benefit, in effect, retained if two adjustments are made in the loan agreement. First, restrictions can vary as the borrower's credit quality changes. For example, a

maximum permissible ratio of debt-to-total capital could vary from, say, zero to 50 per cent, depending on the borrower's rate of return on total capital, increasing with the firm's rate of return.

Second, the loan agreement would have an escape clause for the borrower, thereby enabling him to redeem and, hence, repay perpetual debt. This would be especially important if the borrower's investment opportunities were to diminish.

In sum, perpetual debt benefits both borrowers and lenders, but borrowers to a greater degree through a saving of the periodic underwriting cost. The structure of creditors—they simply do not lend long-term funds—and the alleged reasons against perpetual debt, are erroneous. That is, perpetual debt can be accommodated easily by minor adjustments to existing loan agreements.

Joel Stern is President of Chase Financial Policy, Chase Manhattan Bank.

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## CONTRACTS AND TENDERS

YEMEN ARAB REPUBLIC  
NATIONAL WATER AND SEWERAGE  
AUTHORITY (NWSA)

BULK SUPPLY OF MATERIALS AND  
EQUIPMENT FOR CONSTRUCTION OF WATER  
SUPPLY AND SEWERAGE PROJECT—TAIZ, YAR

NWSA through Hazen and Sawyer, a consultant, solicits tenders from firms interested in supplying materials and equipment for the above construction. A general description and approximate quantities of materials and equipment is as follows:

- 18 km. of 600 mm water transmission main piping and fittings
- 24 km. of 180 mm to 600 mm well field piping and fittings
- 136 km. of 20 mm to 500 mm water distribution system piping
- Various diameter gate, butterfly and other valves
- 190 km. of 100 mm to 750 mm sewer pipe and fittings
- Manholes frames and covers
- Cement and reinforcing steel
- Six various diameter steel water tanks and accessories
- Electrical transmission poles
- 26 Automobiles and trucks
- 7,000 water service meters

Specifications and Tender Documents can be obtained starting 10 April 1978 at the following address:

Mr. F. P. Coughlan, Jr.  
(Dept. Taiz Project Supply)  
HAZEN AND SAWYER, P.C.  
360 Lexington Avenue  
New York, New York 10017  
United States of America

Requests should be accompanied by a certified cheque drawn on a bank maintaining offices in the USA in the amount of US\$200 per contract. The cheque shall be payable to the firm of Hazen and Sawyer, P.C. and the money shall be non-refundable.

Specifications and Tender Documents can also be obtained at the following address:

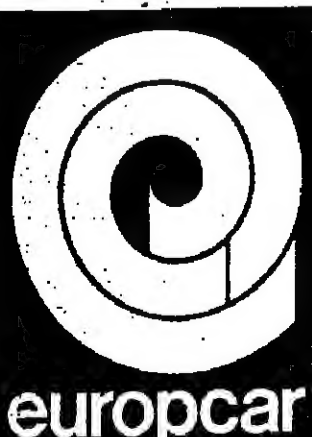
Mr. M. A. Al-Fusail  
Director General  
NATIONAL WATER & SEWERAGE AUTHORITY  
P.O. Box 104  
Sana'a, Yemen Arab Republic

Requests should be accompanied by a certified cheque drawn on a bank maintaining offices in the Yemen Arab Republic in the amount of US\$200. The cheque shall be payable to NWSA and the money shall be non-refundable.

THE TENDERS SHALL BE DUE JULY 1, 1978  
Funds for this project shall come from loans or grants from the US Agency for International Development, Abu Dhabi Fund for Arab Economic Development, Saudi Arabian Fund for Economic Development, and from the Government of Yemen Arab Republic.

## CLUBS

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# In praise of Britain

BY PETER RIDDELL

PRAISE for Britain's economic policies from anyone in the U.S. has been unusual in recent years and is doubly notable when the speaker is as eminent a banker as Mr. Walter Wriston, the chairman of Citicorp. The tendency in the past has been to talk of an English disease which should somehow be avoided but Mr. Wriston contrasted the recent U.K. experience favourably with developments in the U.S.

In testimony last month to the Congressional Joint Economic Committee, he argued that in Britain there was a new confidence that stemmed from a fundamental change in national policy—a recognition that it is not only futile but positively counter-productive to push recklessly and relentlessly for higher growth.

## Optimism

Mr. Wriston maintained that there was great optimism in the U.K. In contrast to the pervasive anxiety in the U.S. and this newly found British contentment was reflected in greater financial stability. All of these gains, he maintained, were made in face of an essentially stagnant British economy, while in the U.S. there had been the other side of the coin with real economic growth far from stagnant.

However, "we persist in behaving like the patient who is doing better but feeling worse, and the trouble I submit is the gnawing apprehension that we have learned nothing from experience and, as a result, are still bent on risking another cycle of go and stop."

Mr. Wriston may be right about the U.S., though the real reason seems to be the more basic one of the connections between monetary and exchange rate policy, but he exaggerates the change in the U.K. It is possible to detect behind Mr. Wriston's view of the U.K. the influence of Mr. Peter Jay, both now as Ambassador in Washington and previously, and indirectly, as probable author of the Prime Minister's famous statement in September 1976 about the option no longer existing for a country to spend its way out of a recession and increasing employment by cutting taxes and boosting Government spending.

This comment has been widely quoted in the U.S., not least by

Professor Milton Friedman, as evidence of Britain's potential redemption. But some of this confidence in the U.K.'s change of heart may not be soundly based. Callaghan's view, for example, be accepted only with reservations by many in the Treasury, from the top downwards.

It is certainly true, as my colleague Sam Brittan pointed out in his Chicago lecture on the English sickness last week, that British policymakers are at last learning there is no escape if the Government tries to spend its way into full employment; the result will be not just inflation, but accelerating inflation.

This does not, however, represent a full-scale conversion to monetarism—far from it. The change is more one of degree with the fairly widespread recognition that there are now strict limits on the extent to which action can be taken to stimulate demand, notably the impact of any monetary expansion on the exchange rate. This clearly prevents a quick return to some kind of natural or sustainable rate of unemployment consistent with avoiding merely an acceleration of inflation. But the neo-Keynesian belief in demand management policies as much remains and is shown both by Mr. Healey's calls for coordinated international fiscal action by the main industrial countries and by his domestic policies aimed at boosting demand at a gradual rate.

## Recognition

The real change in the last few years has been the recognition, or at least the reluctant acceptance, by the Treasury of the power of markets, as Sir Douglas Wass noted in his recent lecture. The Government's ultimate intention to resist market pressures—whether on sterling or domestically—has been the key lesson since 1974.

The result is that the Government now has to pay close attention to market expectations on, for example, the borrowing requirement and monetary expansion. The Treasury can, of course, influence expectations but it cannot determine them. Thus to the limited extent that Mr. Healey's budget reflects Mr. Wriston's view of a switch of priorities in the U.K. it will largely be because of market influences rather than because of any change of intellectual commitment.

# Learning to cope with European law

BY JUSTINIAN

NOT LONG after this country joined the Common Market the Court of Appeal was asked to make a reference to the European Court in Luxembourg for an opinion on Community regulations concerning wine.

In declining to make the reference, Lord Denning, Master of the Rolls, said in his judgment that the regulations of Rome "is like an incoming tide. It flows into the estuaries and up the rivers. It cannot be held back. Parliament has decreed that the Treaty is henceforward to be part of our law."

Now, four years later, Community law is frequently in the upper reaches of the legal hierarchy. How far English lawyers are learning to cope with this infusion of a foreign system of law is both intriguing and of practical significance to those coming before the courts with Common Market issues for determination.

## Question

A recent case—the first which has come to the Court of Appeal (Criminal Division)—illustrates the limitations potentially placed on our law. Three people were arraigned at Canterbury Crown Court last year on an indictment charging them with the smuggling into the country of gold coins. Two of them were charged also with conspiring to evade the prohibition on the export from this country of coins of silver alloy minted before 1947.

The question at issue, both at Canterbury and in the Appeal Court, was whether the restrictions on the import of gold coins and the export of silver coins, which the three were convicted of contravening under the Customs and Excise Act 1952, were invalidated by the prohibition in Articles 30 and 34 of the Rome Treaty.

The Crown contended that if coins of the kind in question were properly to be regarded as goods, and came within that part of the Treaty which prohibits any restriction on the free movement of goods and services in the member states, those prohibitions invalidated the Customs laws of this country, unless they could be justified under Article 36 on grounds of public policy.

The judge at Canterbury ruled that the term public policy in Article 36 included economic policy, and justified prohibitions imposed by a member state on the import or export of gold and silver coins.

The Crown said that if the coins held that the coins were goods, then whether the prohibition could be justified on the grounds of public policy raised an important question of interpretation of the Treaty.

The Crown said that in any event the control of the movement of coins of the kind in question was governed by another fascicle of Articles in the Rome Treaty under the heading of "Capital". An EEC Council directive of 1960 treats as the movement of capital the physical imports and exports of financial assets. Such assets are then defined as (a) securities and (b) means of payment of all kinds, (b) gold.

Did not that make it clear beyond all argument that gold in any form, and silver coins capable of being used as a means of payment, fell to be considered under the heading of capital and not as goods?

## Caution

The trial judge had no hesitation in ruling that gold in whatever form, and not solely gold ingots, is included in the term capital, and this, therefore, is the basis of the prohibition on silver coins and gold Krugger-rands.

As a fall-back position, the accused pointed to Article 71 of the Treaty. The Article expresses an injunction on the member states that they shall endeavour to avoid introducing any new exchange restrictions on the movement of capital.

That certainly rings the death-knell of exchange control laws (including the movement of currency) but it is not mandatory and it does not impose any current restrictions on the movement of capital. It looks to the future prohibition.

If the question before the Court of Appeal had related to gold alone, the judges seemed disposed to say gold in whatever form was capable of being used as a means of payment.

But what about the gold coins produced in a non-member state? Were they capital within the meaning of the 1960 EEC Council directive?

Did not the silver alloy coins? Pre-1947 minted silver coins appeared to have been at all times legal tender in this country, and so presented no legal problem. But if they were not legal tender in a member state, but were merely protected against destruction, and any trade in them for their metal content deprive them of the status as protected coinage?

The intriguing question is whether the English judges should decide these questions of

the interpretation of the Rome Treaty, or look to the European Court in Luxembourg to do the interpreting.

Ever since lawyers turned their attention to Common Market law there has been an anguished debate about how far the courts of the member-states should take it on themselves to do the interpreting of Community law. If the point of law is free, then doubt, or is tolerably clear, then there is no need to refer.

But where there is some doubt, should that doubt be resolved by the one court which can give the final authoritative ruling—the European Court?

Some of the judges in this country who think there is a danger of overloading the European Court with work, that references to it should be made sparingly, and that national lawyers must make themselves the best judges to interpret the Treaty as best they can, even if that might mean different interpretations coming out of the courts of the different countries.

Other judges see great dangers in conflicting judicial views in the member states of the national courts. Better to get an early ruling from the European Court.

## Superior Gunners treat Orient as a minor inconvenience

ARSENAL were in no way flattered by their 3-0 victory in the FA Cup semi-final at Stamford Bridge on Saturday, even though there was an element of luck about all three goals, two in-offs and a keeping error by Jackson. He had earlier brought off several memorable saves to prevent what could easily have developed into a massacre.

The Gunners simply outclassed the Orient, who were reduced to a defensive role by the superior play of Arsenal. The Gunners' attack was superb, individually and collectively, the Orient Plan, which had proved successful against less sophisticated First Division opposition in earlier rounds was based on containment. Their mid-field trio were more concerned with defence than attack, while Roper operated behind a standard back four.

If they had been able to hold Arsenal until midway through the second half and had broken away once to score, it might have worked; but when they

# Heart-tingling Ipswich torpedo brave Albion

RICHLY LADEN with drama, excitement, and bravery, Saturday's FA Cup semi-final at Highbury in which Ipswich Town beat West Bromwich Albion 3-1 proved an epic. Injury-hit Ipswich have had an indifferent Football League season, falling well short of expectations, and there has been a tendency to write them down as potential finalists.

But while they may lack creative artists of the calibre of Arsenal's Brady and Hudson, Ipswich, in my submission, have sufficient heart-tingling performers to make this year's Wembley showpiece, and their first final, one of the better and more memorable.

Ipswich are often more thrifty to watch in defence than attack. Three of their back four, Hunter, Beattie and Mills, have a fear-naught, dashing, cavalryman-style of operation, neatly complemented by the clean-lined elegance of High-back Burley. Hunter and Beattie are among the League's most dominant defensive pairings aerially; Burley and Mills among the most persistent and productive pairs of raiding full-backs.

The semi-final was shaped by Tony Brown with a dozen minutes by Talbot a split-second before a collision of heads off when he brought down Albion 3-1 proved an epic. Injury-hit Ipswich have had an indifferent Football League season, falling well short of expectations, and there has been a tendency to write them down as potential finalists.

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## Soccer

BY TREVOR BAILEY

With the experienced Macdonald and the enormous potential of Stapleton up front, a resolute back four who are playing sensible balls out of defence and Jennings in goal, they must start favourites to beat the consensational, but less cultured Ipswich in the final.

Their danger could be a tendency to the over-reliance on individual dribbles. Either could prove fatal on Wembley's large, and tiring pitch. Arsenal unquestionably have the class, but do they also possess the character to come back from behind in the final.

## Rugby

BY PETER ROBBINS

They exploited very quickly. The all-Cambridge backrow of Bligh, Pratt and Stewart (replaced at half time by Goodenough) all enjoyed the first half in which an early high light was a typical interception by McHarg near his own line.

He has become a folk hero for his orthodoxy and the crowd loved his outrageous and sudden appearances. He was, of course, they exploited very quickly. The all-Cambridge backrow of Bligh, Pratt and Stewart (replaced at half time by Goodenough) all enjoyed the first half in which an early high light was a typical interception by McHarg near his own line.

# Clans rally to the celebration

THE CLANS gathered at the Athletic Ground in Richmond to see London Scottish play against the Scottish Rugby Union President's XV in celebration of the London Scottish centenary. The guests were defeated 3-0, with a mixed crowd of Scot and English players.

Without wishing to be too harsh on what was essentially a happy occasion, the standard of play was not worthy either of the club's glorious history or the splendid record they have achieved this season. For the first time they have finished top of the London Merit table and in the course of Saturday's game they scored their 100th try of the season.

Even in the way of mistakes was castigated. The defence had been so successful this season and their success begins with an able committee led by their well-organised President, Bill MacPherson, QC.

# Odds shorten on Try My Best

SOON AFTER five of the low-drawn runners had filled all but one of the first half-dozen places in the Lincoln Try My Best was announced that the odds on the favourite, Vincent O'Brien's Northern Dancer, had shortened to 2-1.

It is a sobering thought that half the 2,000 Guineas winners in the last 20 years have started at odds of 100-1 or longer and that Vincent O'Brien's Northern Dancer colt was never asked a serious question in Phoenix Park's Vauxhall trial, in which he sauntered to a two-length victory over Fox Bend, Pignotti's post-race comment to the favourite backers "not yet on" may well do best to wait until the afternoon of the race itself (May 6) before deciding whether to join the plunge.

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# Press council Journalist ruling

THE PRESS COUNCIL has ruled that it had the powers to adjudicate in a complaint against The Journalist, official newspaper of the National Union of Journalists, over its refusal to publish a letter from Mr. Ron Knowles, a former editor of the council, who had claimed it was exempt from its jurisdiction.

Mr. Knowles said the case was referred to National Front journalist David McCalden, who has worked on the National Front newspaper Britain First.

Three years ago Mr. McCalden had his membership application to the NUJ rejected because of his "views and policies" of the "National Front" organisation behind his news-columnists to people of opposite views.

# TV/Radio

**BBC 1**  
+ Indicates programme in black and white.  
6.40 a.m. Open University. 12.45 p.m. News. 1.00 Pebble Mill. 1.45 Cambridge Green. 3.15 Songs of Praise. 3.55 Regional News for England (except London). 5.35 Play School (as BBC 2 11.00 a.m.). 5.40 Tarzan, Lord of the Jungle. 6.40 Chequers Plays Pop. 5.05 John Craven's Newsworld. 5.10 Blue Peter. 5.40 News. 5.55 Nationwide (London and South East only). 6.30 Nationwide. 6.55 Ask the Family. 7.20 Angela. 8.10 Panorama including Mr. Cull Price—report on the Prices Minister Roy Hattersley. 9.00 News. 9.25 The Monday Film: "The Heist" starring Warren Beatty. 11.20 To-night.

**BBC 2**  
6.40 a.m. Open University. 11.55 Play School. 1.00 Open University. 7.00 News on 2 Headlines With sub-titles. 7.05 Children's Wardrobe. 7.30 Newsday. 8.10 Drama 2. 9.00 Beryl Reid with guests. 10.35 Late News on 2. 10.45 Open Door. 11.00 Report. 11.45 Drama. 11.55 News and Weather for Scotland. 12.00 Northern Ireland—3.55-3.55 p.m. Northern Ireland News. 5.55 Scene Around Six. 6.30-6.55 Land of the Living. 12.00 News and Weather for Northern Ireland. 6.40-6.55 a.m. Look East (Norwich); Look North (Leeds, Manchester, Newcastle); Midlands Today (Birmingham); Points West (Bristol); South Today (Southampton); Spotlight South West (Plymouth).

**ITV**  
6.40 a.m. News. 7.00 News. 7.30 News. 8.10 News. 9.00 News. 10.35 News. 11.00 News. 11.55 News. 12.00 News. 12.30 News. 1.00 News. 1.30 News. 2.00 News. 2.30 News. 3.00 News. 3.30 News. 4.00 News. 4.30 News. 5.00 News. 5.30 News. 6.00 News. 6.30 News. 7.00 News. 7.30 News. 8.00 News. 8.30 News. 9.00 News. 9.30 News. 10.00 News. 10.30 News. 11.00 News. 11.30 News. 12.00 News. 12.30 News. 1.00 News. 1.30 News. 2.00 News. 2.30 News. 3.00 News. 3.30 News. 4.00 News. 4.30 News. 5.00 News. 5.30 News. 6.00 News. 6.30 News. 7.00 News. 7.30 News. 8.00 News. 8.30 News. 9.00 News. 9.30 News. 10.00 News. 10.30 News. 11.00 News. 11.30 News. 12.00 News. 12.30 News. 1.00 News. 1.30 News. 2.00 News. 2.30 News. 3.00 News. 3.30 News. 4.00 News. 4.30 News. 5.00 News. 5.30 News. 6.00 News. 6.30 News. 7.00 News. 7.30 News. 8.00 News. 8.30 News. 9.00 News. 9.30 News. 10.00 News. 10.30 News. 11.00 News. 11.30 News. 12.00 News. 12.30 News. 1.00 News. 1.30 News. 2.00 News. 2.30 News. 3.00 News. 3.30 News. 4.00 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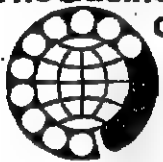
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## Overworked taxmen

BY DAVID CHURCHILL

WHEN MR. DENIS Healey finishes his Budget speech tomorrow afternoon the question will remain not only whether he can get the Finance Bill through Parliament unscathed but also whether Britain's tired tax officers are willing or able to carry out the job.

For the first time ever the Inland Revenue Staff Federation, which represents the bulk of Revenue staff, will not automatically acquiesce in implementing the inevitable Budget tax changes. Instead the union will hold a special executive meeting the day after the Budget to decide its course of action.

### Extra work

Since last October's mini-budget this normally-moderate union has already staged a three-month overtime ban and work to rule in protest at the amount of extra work its members have been expected to do. Feeling among the tax staff throughout the U.K. is said to be running high: if the pressures of last year are repeated then more severe—and for the tax officers unprecedented—action may follow.

Although the Federation has agreed to honour the Government's pay guidelines this year it has already slapped in a claim for extra pay from next April to take account of the extra strain imposed by changes in the tax system. But the union has firmly told the Government that it wants the extra money agreed now as a sign of good faith.

### Far cry

As Mr. Tony Christopher, the Federation's general secretary, put it: "Notice has therefore been given. We are not to be taken for granted. There are some major causes of discontent in the Revenue and it is clear that members will not put up with them or be put upon for much longer."

All this is a far cry from a few years ago when there was hardly a murmur from Revenue staff about the pressure of overwork. Every year at Budget time there was a degree of pressure arising from tax changes, but nothing with which the staff were unable to cope after a few weeks of overtime.

Yet now some tax offices are running months behind schedule with some parts of their

work. Staff morale, traditionally high as staff close ranks in the face of public abuse against the Revenue, has plummeted dangerously in some cases. The continuing pressures on the staff's health also have to be taken into account.

There are many reasons why the tax machine is creaking—not least the vagaries of politics.

Last year alone there was the traditional spring Budget followed by two mini-Budgets in the summer and autumn. On top of these there are other necessary changes imposed by the falling building society interest rates and changes in child allowances. All this was in addition to the regular workload for Revenue staff which

week illustrates the extra workload imposed on staff last year. In November 1976 to April 1977: Annual recording was carried out and objections to these settled. In the last few weeks of March, tax deduction cards were issued to balance out tax actually paid, with tax that should have been paid. In about six out of seven cases, the tax deductions are usually correct within acceptable tolerances and no further assessment is necessary.

### Recoding

April to June 1977: Tax return forms were issued and the recoding changes caused by the Budget carried out. Special child allowance rates for certain students introduced.

June to September: New codes issued as a result of increased National Insurance benefits. Increase in exemption limit for certain savings bank interest. Changes caused by amendments to Finance Bill in committee stages. July mini-Budget tax changes leading to recoding notice being sent out.

September to January, 1978: Changes in building society interest rates led to recoding October mini-budget results in yet further recoding.

January to April 1978: Annual recording in advance of tax returns being sent out and tax deduction cards sent out.

Throughout the whole April-to-April tax year, staff are also responsible for usual work. This includes amending codes for changes in individual circumstances; dealing with newcomers to PAYE; changes of employment, and retirements; and repaying tax to unemployed and those leaving the U.K.

### Tinkering

The official side of the Revenue is also concerned about the effect on staff morale of recent pressures. After last October's mini-budget, Sir William Pile took the unusual step of writing to all staff telling them that the Prime Minister and Chancellor were "fully aware of the strain on you all and of your devoted response."

With tomorrow's Budget, however, words may not be enough, especially if there are further tinkering with the tax system. An extra 1,300 staff would be needed to deal with a new lower tax band, but they are unlikely to be recruited if such a measure is included in the Budget, according to the union.



Sir William Pile, chairman of the Board of Inland Revenue, and Mr. Anthony Christopher, general secretary of the union.



clans and the impact of inflation on tax thresholds. But, fundamentally, the Pay as You Earn tax system's problems stem from the fact that it is a manual operation. Every piece of financial information about a person's income and allowances has to be entered on to the record by hand. That is one reason why Revenue staffing levels have jumped from 51,000 to 83,000 over the past 20 years—with the magic figure of 100,000 a distinct possibility in the near future, according to Sir William Pile, Inland Revenue chairman, in recent evidence to the Public Accounts Committee.

Attempts at computerisation have fallen foul of different ideas by successive governments to reform the tax system. But experiments in computerisation are currently being carried out in Scotland and the North of England.

But the real crunch has come over the past two years. Britain's economic problems led to budgets becoming only months apart, instead of once a year.

is designed fully to occupy their time. It meant that every few months, tax staff would have manually to alter the tax records for 24.7m. taxpayers.

From a purely administrative point of view, the problem is worsened by the physical drawbacks of such a vast manual records system. All tax information for each tax-payer for seven consecutive years is contained on a card measuring 9 inches by 7 inches. Details on the card can be filled in by at least two and usually several more staff in ink. A column 1 inch wide by 4 inches deep for each year contains details of all tax allowances. Every time they change—and they were altered several times last year for budgetary and other reasons apart from changes resulting from different personal circumstances—it means a new entry and recalculation of tax code.

### Computers

Attempts at computerisation have fallen foul of different ideas by successive governments to reform the tax system. But experiments in computerisation are currently being carried out in Scotland and the North of England.

But the real crunch has come over the past two years. Britain's economic problems led to budgets becoming only months apart, instead of once a year.

### Mistakes

The effect is often to produce a blotchy and grubby card file which can inevitably lead to mistakes.

The sequence of events in the tax year which finished last









## FINANCIAL TIMES

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Monday April 10 1978

## An erratic President

THERE IS, on the face of it, a good deal to be said for a NATO decision to defer the production, and certainly the deployment, of the neutron bomb until the implications for arms control have been fully considered. Too often in the past the introduction of new weapons technology has simply led to a stepping-up of the qualitative arms race without any compensating increase in security. The development of multiple independently targetable re-entry vehicles (MIRVs) by the Americans is a case in point. These were not included in the first strategic arms limitation agreement (SALT I). Yet the omission made SALT I less of a breakthrough in arms control than might otherwise have been possible. It also halted progress towards an agreed balance of strategic power: the two superpowers merely began to compete in the quality of their weapons where they had previously competed in quantity. And, of course, the American MIRVs now have their own MIRVs and have made great gains in the accuracy of their strategic weapons.

## Too late

The neutron bomb offered a comparable basis for negotiation. NATO could have said to the Warsaw Pact: "Look, we have this new weapon which we are quite capable of introducing and which would go a long way towards diminishing the effectiveness of your present superiority in tanks. You could, however, remove the need for it by reducing your own tank armies. There is a negotiating forum, known as MBFR (for mutually balanced force reductions), in which this could be perfectly well discussed. Alternatively, you might like to come up with some ideas of your own. For instance, there is the SS-20 which is not covered by any existing arms control negotiations, but which you have recently targeted on West European population centres. It's a much bigger weapon than the neutron bomb and, being strategic rather than tactical, quite different in kind, but still, if you were prepared to restrict deployment, perhaps we could talk."

Such an approach could have had the further advantage of uniting the NATO allies. It and it is no way to lead an would have put the Atlantic alliance.

## Little new from Copenhagen

THE NINE like to regard their opinion as to how to react to regular summit meetings as unsensational, workmanlike gatherings, at which it is not always necessary to take dramatic decisions. It is often enough, they argue, for heads of Government to have a general discussion of EEC and world problems and deal expeditiously with any items of outstanding business. By these standards, the latest session of the European Council in Copenhagen, which ended on Saturday, has been a modest success.

## Elections

The summit quickly agreed on a date for the first direct elections to the European Parliament, which will now be held in June next year, just 12 months after the original target date. There appears to be little ill-feeling towards Britain for causing the delay — indeed, for different reasons, it is quite welcome to both France and West Germany. There was equally little difficulty in agreeing a new commitment to democracy and human rights that will apply to all member states, but which has the three Mediterranean candidate countries — Greece, Portugal and Spain — particularly in mind.

It is much harder, however, to see what the summit has achieved in its principal area of concern, the international economic and monetary situation. Mr. Roy Jenkins, the Commission President, emerged from the meeting confident that important progress had been made towards greater monetary integration along the lines he first proposed last autumn. It is first proposed last autumn. It is true that Heads of Government were apparently amenable to the idea of extending the use of a Community's unit of account to official settlements between member countries, giving it a limited reserve role. That could well be significant for longer term efforts to create a common or "parallel" currency. It is not, however, very relevant to today's problems.

There seems, in fact, to have been considerable divergence of diagnosis.

## VW starts pulling the Rabbits from its U.S. hat

BY JOHN WYLES IN NEW YORK

CHRYSLER Corporation did not want it. Herr Rudolf Leiding resigned because he could not have it. Governor Milton Shapp nearly lost it and more than 35,000 people cannot get a job in it. The path to Volkswagen's factory at New Stanton, Pennsylvania, has been littered with corporate battles, political rivalries and personal disappointments. But these will no doubt count for naught to-day, when a Volkswagen Rabbit rolls out of the first foreign-owned car manufacturing plant to be opened in the United States for more than 40 years.

The plant, originally intended for Chrysler, who abandoned construction on it before the half-way stage in 1970, represents a \$300m. bid by VW to regain its former glory as the leading producer of foreign cars sold in the U.S. Japan's Toyota snatched this crown in 1975 when VW came in third behind Datsun. Last year, the West German company increased its year-on-year sales in the U.S. for the first time since 1970, but they were still less than half the 571,000 units sold in that peak year. Competition has undeniably sharpened among importers, but VW models which have been enthusiastically accepted by European car buyers have run into a recurrent marketing problem in the U.S., which is beyond the wit of any design engineer: the West German mark's upward march against the dollar. In eight years its value has risen from DM3.60 to the \$ to a shade over DM2.

But the New Stanton investment represents more than an attempt to shelter from the mark's strength. In a real way, it is a physical expression of VW's emergence as a world car producer ranking with, but on a smaller scale than, General Motors and Ford. The characteristic of a world company is that it produces in and for several major national markets a range of designs distinguished by standardisation of equipment and components.

VW's Rabbit, which is sold in Europe as the Golf, was planned to replace the legendary Beetle as a car which would sell successfully in any market. Whether it will ever attain the Beetle's selling power remains to be seen, but after a rocky launch in 1975 the Rabbit found 194,703 purchasers last year, giving it about 16 per cent of the total U.S. imported small car market.

But its fundamental problem was highlighted again just ten days ago when, for the fifth time in 12 months, VW had to announce a round of price increases because of the dollar's weakness. When it was launched the Rabbit was priced at \$2,999; to-day the cheapest version sells at \$4,220.

The implications of a currency

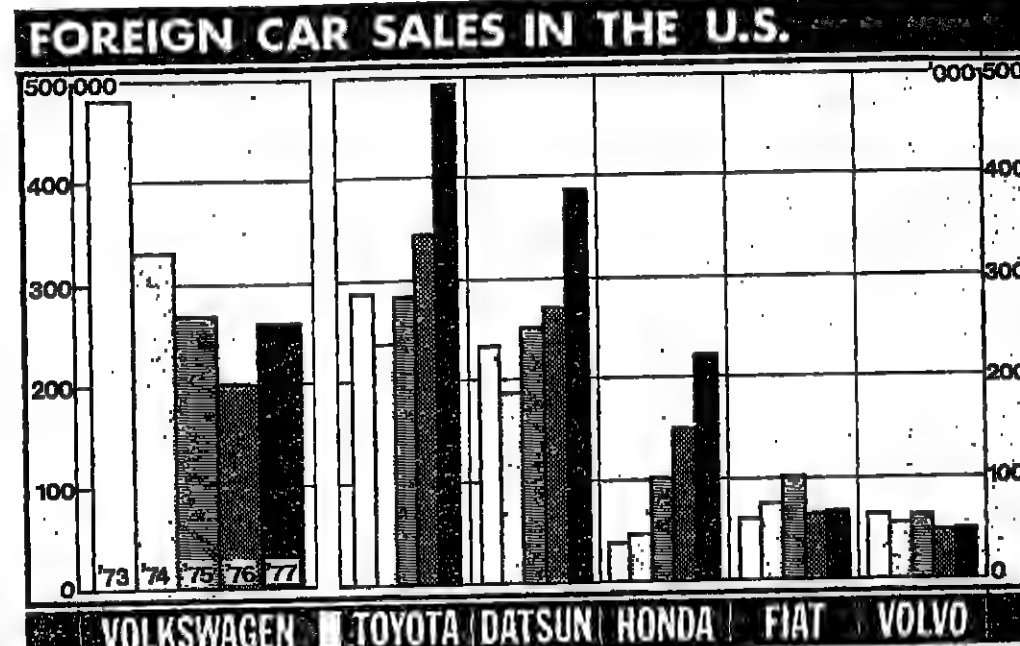
crunch for VW first became apparent in 1973, when the company's U.S. profits were savagely eroded by a falling dollar and sliding sales. The sales weakness was also due to the fact that the geriatric Beetle's attractions were fading rapidly by this time. But VW was addressing this problem with a range of new designs which it was confident would restore its fortunes. However, Herr Rudolf Leiding, then VW's chairman, was also arguing forcefully that the particular problem in the U.S. market could be overcome only by establishing a manufacturing presence inside America.

But by 1974 VW's problem was not confined to the dollar. For like all car companies it was caught in the downdraught of economic recession which hurt worldwide sales and profits at a time when the company was financing the development of a new model range.

memoranda detailing the course of preliminary conversations which had been held with both Chrysler and American Motors on the possibility of producing VW cars in either company's facilities—a concept which was embodied in the Renault-American Motors agreement ten days ago.

Herr Schmucker rapidly pushed through a plan to cut the VW workforce in West Germany by 25,000 (18,500 eventually left) and then in May, 1975, publicly supported the notion that the only way to recapture the American market, which had once accounted for nearly a third of VW's output, was to produce cars there. During the next 11 months detailed analyses by VW executives produced the following arguments in favour of such a move:

Production in the U.S. would drastically reduce the com-



Herr Leiding could not carry his views on U.S. production through his supervisory Board, whose trade union representatives were becoming increasingly preoccupied with the need to save jobs in West Germany and would not consider anything which might mean "exporting" jobs to the U.S.

## Career with Ford

Herr Leiding resigned in late 1974 and direction of VW was handed over to Herr Toni Schmucker, who until 1968 had spent his entire career with Ford Motor Company's West German subsidiary. In the intervening period he had consolidated a problem-solving reputation by leading the troubled steelmaker Rheinstahl AG out of trouble and into a merger with the Thyssen group.

Herr Schmucker's inheritance at VW included a set of

company's exposure to further appreciation of the D-mark, although this would remain a factor because a major proportion of components would have to be shipped across the Atlantic for U.S. assembly. (Some 25-30 per cent of the first American Rabbits will be built with U.S. components and this will rise to 75 per cent by the end of 1979.) Production in the U.S. would also free VW from the effects of any protectionist movement and from anti-dumping complaints of the kind levelled against the company in 1976.

Competition from Japan was making the small car import market increasingly tight; shorter lines of supply and design modifications would give VW a competitive edge.

As regards unit costs and productivity, wage costs and fringe benefits in the U.S. and West Germany were broadly similar but they were rising more



Volkswagen Manufacturing Corporation's chief financial officer, Mr. Fredrick Thomee, in front of the New Stanton works, which goes into Rabbit production to-day.

rapidly in West Germany, where car workers were also working about 30 fewer days per year. Labour was easier to shed in the U.S. during market recessions and the high-volume U.S. producers were extracting two to three times more in value per man than was VW in West Germany.

Tighter governmental regulation in the U.S. on safety, pollution and fuel economy could force the pace of technical innovation which might have spin-offs in other markets.

VW must also have assessed in detail the impact on its West German activities of building a U.S. plant with an annual capacity of 300,000 vehicles. The

Cleveland, Ohio, and a partially built Chrysler Corporation plant at New Stanton, 35 miles south-east of Pittsburgh. Slicing a major investment directly worth up to \$500 million and perhaps a significantly higher value per man than was VW in West Germany.

Pennsylvania and the attractions of a purpose-built factory "shell" won the day, but not before VW had raised the possibility of changing its mind and going to Ohio because Governor Milton Shapp of Pennsylvania could not get all the elements of his financial package into place. VW has ended up raising more than \$200m. itself through European bond issues. But it has also taken about \$40m. at extremely low rates of interest from two local Pennsylvania pension funds.

The period since the keys to the plant were handed over to VW on October 5, 1976, has witnessed impressive feats of organisation and cultural encounters of an occasionally bracing kind.

The 3.1m. square-foot facility housed a dirt floor and virtually little else 18 months ago. An office block has been constructed and road and railway links created.

VW decided that the management of the Volkswagen Manufacturing Corporation would be largely American. Not least because it wanted to incorporate what it hoped would be the best U.S. production techniques into the VW system.

## More than one U.S. plant

Overall responsibility was given to Mr. James W. McLernon, who was recruited by a firm of headhunters to be president and chief executive of the manufacturing company. Moving to VW ended a 29-year career with GM for Mr. McLernon, who had spent the seven years before his appointment in September, 1976, as general manufacturing manager for the Chevrolet division, which has 75,000 employees in 27 plants. The lure was not the five-year contract reportedly worth \$2m. but being in at the creation of a corporation which Mr. McLernon believes will eventually encompass more than one U.S. assembly plant. His top management team includes former employees of all four of the Detroit car companies selected from more than 5,000 applications made by similarly qualified executives.

With a two-year lead time necessary for establishing a U.S. plant, the Japanese may just have missed the boat. For in two years' time the full power of the Detroit companies will be concentrated on the small The Rabbit, in his New Stanton hutch, should be more secure.

The American team is responsible for the traditional range of top corporate functions, although the posts of vice-presidents of quality control and engineering are filled by West Germans. This is not, VW stresses, any reflection on the capacity of American nationals, but is meant to ensure that the Rabbit loses none of its quality by being moved across the Atlantic.

Although the American managers have allegedly found their German colleagues' appetite for paper work and their attention to detail occasionally trying, there appears to have been a successful fusion of styles and expertise. Honour where due has been given. The Americans won a disagreement over production line arrangements and have devised a production manual for employees good enough to have been introduced in VW's West German plants.

## Intensive training

VW has received some 40,000 applications for the just under 5,000 jobs it has to offer. Some 1,000 workers will be involved in producing the first batch of Rabbits following an intensive training programme. Among other things, this has involved shipping 500 partially-built Rabbits between last October and February for finishing in the U.S. plant to standards which, says VW, proved highly satisfactory. VW expects to produce about 60,000 Rabbits out of the New Stanton plant this year, all of which will be 1978 models and "Americanised" to suit the demand here for more seating comfort and a wider range of colour schemes.

Thus it will be a year or more before it can be seen whether the American consumer, who often associates quality with things foreign, accepts the domestically produced Rabbit as readily as he seems to be opting for the West German version. No-one will be watching more closely than the Japanese motor companies, whose prices now are just as unstable as VW's because of the yen's appreciation against the dollar.

With a two-year lead time necessary for establishing a U.S. plant, the Japanese may just have missed the boat. For in two years' time the full power of the Detroit companies will be concentrated on the small The Rabbit, in his New Stanton hutch, should be more secure.

## MEN AND MATTERS

## Sir Idwal's growing teeth

It will not be the easiest of weeks for Alex Atkinson, second permanent secretary at the Department of Health and Social Security. This Wednesday he is to face a Select Committee that oversees the work of the Ombudsman. The committee will be asking Atkinson some hard questions about a case in which DHSS civil servants have been accused of "deplorable deceit" and "improper behaviour." These charges were made by the Ombudsman, Sir Idwal Pugh, after investigating the complaints of a war-disabled colonel who for 23 years was denied his proper pension—as were a score more fellow-officers.

The fierceness of Sir Idwal's condemnation led to calls in the Commons for the resignation of Social Services Secretary David Ennals, who made do with a humble apology. It also shows how the present Ombudsman has raised this once-disparaged job to a different plane since he took it over in 1978. Yet, at first glance, Pugh does not seem a fire-eater.

He is slight and neat and has an informal approach that must put at ease the people bringing their complaints to him. Mentioning the furore about over-charging for vehicle licences, he says with satisfaction: "I had quite a dingdong with the Transport Ministry." He won, of course. A lifelong civil servant himself, Sir Idwal has dispelled suspicions that the Ombudsman will never give bureaucrats anything worse than a gentle reproof. He has also come out from behind the deadening official title — Parliamentary Commissioner for Administration — devised when the job was created in 1967. Recently Pugh spread 40,000 posters, carrying the word "Ombudsman" in large type, around public libraries and similar places, telling

the public about the machinery for complaining. "I've also been doing a lot on radio phone-ins and appearing on TV," he told me with satisfaction. "It's not a cult of personality, mind you."

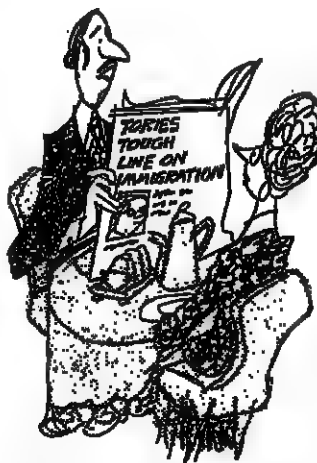
As the law stands, the public can only complain about administrative ill-treatment through MPs. Sir Idwal thinks this should end, to give direct access. The select committee is about to start taking evidence on the way the Ombudsman's powers can be strengthened. It may well become a general election issue, related to the whole "open Government" debate to which Sir Idwal looks forward to the day when the Ombudsman will do more "over-the-counter" work, although he insists that investigation must be very thorough. He now has 35 full-time investigators; the bulk handle administrative complaints—a lot involving income tax troubles. That staff seems sure to grow.

In the meantime, he has given real teeth to the task of helping ordinary people fight the Whitehall machine. "The duty of the Ombudsman is disclosure," insists Sir Idwal.

## Town planning

Sir Charles Clore is hoping to realise over £4m. for his Stype estate near Hungerford, Berkshire. But just as valuable though more controversial than Stype—which has a stud farm, a pedigree Friesian herd and 1,250 acres of farmland—could be the mere 80 acres which Clore has eight miles up the A4 at Thatcham.

His agent, Ralph Wade, told me yesterday that Clore is thinking of selling this land, which he has owned since around the war, to a part of Sears Holdings. But what worries residents of Thatcham is that the estate is virtually the last green land round their town, yet now 800 houses are to be built on it.



"There's nothing racist about it—they just wouldn't want anyone to live here under a Labour Government."

Town Councillor Patricia Burnham told me that the town and district councils had refused Clore planning permission but that two years ago, after offering to pay for some roads and sewerage extensions, he won an appeal.

Clore has long allowed the public on to the 80 acres and one month ago he gave Thatcham sufficient land for a cricket pitch; two smaller areas are to follow.

Burnham says that if in the past people of Thatcham had been better educated and "more eloquent" they might have stopped "the absolute rape" of the green land. She is bitterly critical of another estate being built between a slaughterhouse, a rubbish dump and an expanding sewerage works. She adds: "What has happened in Thatcham is typical of the fate of small communities."

## Cross breeders

Is your pig pedigree or merely a run-of-the-sty hybrid? That is the smoking question of the moment in the piggeries of

Britain. The breeding companies have been exporting some 15,000 animals per year to France and West Germany alone, but suddenly in February a levy of £3 per trotter was imposed on all non-pedigree trade.

The Treaty of Rome has a clear bit of class distinction. Any pig which is not pedigree is classed as "animal for slaughter." But our breeders believe in "hybrid vigour"—that extra something which comes from crossing two breeds and which results in a hybrid being more lively and productive than a thoroughbred.

Breeders fume if you describe their hybrids as cross-bred, but are of course far more incensed by the imposition of the levy. Some exporters had avoided it by classing their animals as "hybrids for breeding" but the EEC, in tackling this, has clattered the whole hybrid trade. Now, with breeders already squealing that domestic margins are tight, the levy is going to add about 10 per cent to their costs. The Ministry of Agriculture offers tea and sympathy but warns that action may be impossible until the Nine agree on new rules. Which could take a pig's lifetime.

## U2

For all the disarray of the world, Dr. Kurt Waldheim is in fine fettle last week, recounting how his predecessor, U Thant, had once been greeted by a listener with the words "My dear Secretary General, what a perfectly superfluous speech!" U Thant, if not plussed was far from being nonplussed and was quick to reply "Thank you so much, madam. Do you think is should be published posthumously?" "Oh, yes sir," came the unblinking answer, "The sooner the better."

Observer

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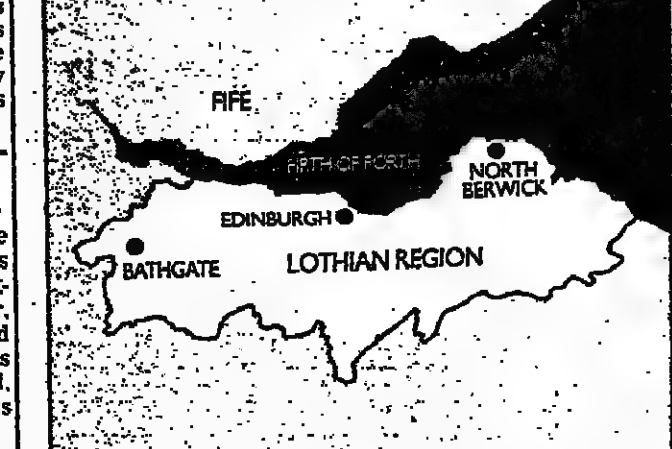
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FINANCIAL TIMES

## Eurobond Quotations and Yields

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THE ASSOCIATION OF  
INTERNATIONAL BOND DEALERS

At 31st MARCH, 1978

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This information is from reports from official and other sources which the Association of International Bond Dealers considers to be reliable, but adequate means of checking its accuracy are not available and the Association does not guarantee that the information it contains is accurate or complete.

All rates quoted are for indication purposes only and are not based on, nor are they intended to be used as a basis for, particular transactions. In quoting the rates the Association does not undertake that its members will trade in all the listed Eurobonds and the Association, its members and the Financial Times Limited do not accept any responsibility for errors in the table.

• The Association of International Bond Dealers (AIBD) compiles current market quotations and yields for Eurobond issues. These quotations and yields are published monthly by the Financial Times. The Association's prices and yields

are compiled from quotations obtained from market-makers on the last working day of each month: there is no single stock exchange for Eurobonds in the usually recognised sense—secondary market trading business is done on the telephone

between dealers scattered across the world's major financial centres. Membership of the AIBD (which was established in 1969), comprises over 450 institutions from about 27 countries. A key to the table is published opposite.

## Eurobonds in March

BY MARY CAMPBELL, Euromarket Editor

March was an eventful month for the international bond markets. It started with the Swiss moves to cut back inflows of foreign funds into the Swiss franc, including Swiss franc foreign bonds, lived through the high hopes and subsequent disappointment over the German/U.S. pact to support the dollar, and ended with the sterling bonds falling through the floor and yen bonds in strong demand.

On top of this, almost every individual currency sector had its own excitement. In the dollar sector, the level of demand was tested for the first time really since last autumn with a big flow of new issues in mid-month. In Japan, not least because of the strength of the currency, there were cuts in interest rates which pushed down the level of foreign yen bond yields while institutional moves got under way, to open up the market a trifle more to foreign participation. The Swiss franc market was perhaps the most exciting with falls of several points recorded and the creation of a completely new yield level. In the D-mark sector a two-tier market almost developed as a result of investors' saturation with so-called "exotic" borrowers—particularly Latin American names—while several issues were brought to the market on terms which were too tight.

In the sterling market, the fall in the value of the currency against the dollar, together with saturation with new issues, produced a sharp tumble in secondary market prices at the close of the month. Despite all this apparent activity, most international interest rates and exchange rates ended the month hardly changed from the levels at the beginning of the month. Thus the three-month Eurodollar

rate on February 28, 7½ per cent, was also the rate on March 31. The dollar weakened somewhat during the month against both D-mark and Swiss franc, but not spectacularly. The main currency changes were in the rates for sterling and the yen: against the dollar, sterling fell by 4 per cent, from \$1.9415 to \$1.8830, while the yen rose 7 per cent, from ¥238 to ¥252½ per U.S. dollar.

In the dollar sector the events of March showed that good-quality borrowers can get a good investor response at the shorter maturities, but that there is not much demand for long maturities (except possibly in the United States—the key test issue there, a \$750m, three-tranche offering for Canada, was unseated by a sharp deterioration in market conditions at the moment it started trading freely on the secondary market).

Thus a five-year Eurodollar bond issue

for Norway was increased in size from \$100m. to \$125m. during the offering period, while a four-year issue for Australia was raised from \$300m. to \$350m. Both (though particularly the Norwegian issue) traded satisfactorily in the after market.

Several long-term issues by contrast, admittedly mostly for less than top-quality names but including a two-tranche offering for the European Coal and Steel Community, were marked sharply down in the secondary market.

In the D-mark sector, there was good demand for top-quality names but an ever more embarrassing problem over the "exotics." The problem was exacerbated by the mispricing of a few issues—notably the DM200m. issue for the United Mexican States which started trading at a discount of more than two points. The outlook for this month is much better since issue managers are holding off these borrowers for the time being.

There was considerable confusion in the primary market in mid-month due partially to a revision of the calendar and a report that a French borrower would

be added following the "right" result in the French elections. However, the issue did not materialise.

In the Swiss franc market, a hiatus followed the introduction of the controls on capital flows limiting foreign investors to 35 per cent of issues (except those for some multinational institutions) and banning them from secondary market purchases of foreign bonds. As a result of this the coupon for a prime borrower on this market was more than half a point higher by the end of the month—4½ per cent—than it had been at the beginning—3½ per cent.

In the yen foreign bond market, fast emerging as a major sector of the international bond market, yields moved the other way and ended the month about 0.2 points lower than at the beginning.

One success of the month was the unit of account, now proving again a valuable source of funds. Two issues were launched in March. The first had its terms changed more than once in favour of the borrower due to good demand.

There was a similar experience in the Kuwaiti dinars.

## NEW ISSUE

These Bonds have been sold outside New Zealand and the United States of America. This announcement appears as a matter of record only.

March, 1978

U.S. \$25,000,000

N.Z. Forest Products Limited

(Incorporated in New Zealand under the Companies Act 1933)

9 per cent. Bonds Due 1986

Kidder, Peabody International  
LimitedLloyds Bank International  
LimitedCommerzbank Aktiengesellschaft  
LimitedCredit Suisse White Weld  
Limited

Deutsche Bank Aktiengesellschaft

Abu Dhabi Investment Company	Alahli Bank of Kuwait (K.S.C.)	Algemeene Bank Nederland N.V.	Amex Bank
Amsterdam-Rotterdam Bank N.V.	Arab African Bank—Cairo	Arab Finance Corporation S.A.L.	
The Arab and Morgan Grenfell Finance Company	Arnhold and S. Bleichroeder, Inc.	Bache Halsey Stuart Shields	
Banca Commerciale Italiana	Banca del Gottardo	Banca Nazionale del Lavoro	Banca della Svizzera Italiana
Bank of America International	Bank Julius Baer International	Bank of Credit and Commerce International	
Bank Gutzwiller, Kurz, Bungezer (Overseas)	Bank Mees & Hope NV	Bankers Trust International	
Banque Arabe et Internationale d'Investissement (B.A.I.I.)		Banque Bruxelles Lambert S.A.	
Banque Française du Commerce Extérieur	Banque Générale du Luxembourg S.A.	Banque de l'Indochine et de Suez	
Banque Internationale à Luxembourg S.A.	Banque Nationale de Paris	Banque de Neufchâtel, Schlumberger, Mallet	
Banque Paribas	Banque de Paris et des Pays-Bas	Banque de Paris et des Pays-Bas (Suisse) S.A.	Banque Privée S.A.
Banque Paribas	Banque de l'Union Européenne	Banque Worms	Baring Brothers & Co.,
Bayerische Landesbank Girozentrale	Berliner Handels- und Frankfurter Bank		Blyth Eastman Dillon & Co.
Caisse des Dépôts et Consignations	James Capel & Co.	Ceszenova & Co.	Chase Manhattan
Citicorp International Group	Compagnie de Banque et d'Investissements (Underwriters) S.A.	Compagnie Monégasque de Banque	
Continental Illinois	County Bank	Crédit Commercial de France	Crédit Industriel d'Alsace et de Lorraine
Crédit Industriel et Commercial	Crédit Lyonnais	Crédit du Nord	Créditanstalt-Bankverein
DBS—Daiwa Securities	Delbrück & Co.	Deutsche Girozentrale	The Development Bank of Singapore
Dillon, Read Overseas Corporation	Dresdner Bank	Dresdel Burnham Lambert	Effectenbank-Warburg
Eurogest S.p.A.	European Banking Company		First Boston (Europe)
First Chicago Asia Merchant Bank Ltd.	Robert Fleming & Co.		Genossenschaftliche Zentralbank AG
Girozentrale und Bank der Österreichische Sparkassen	Goldman Sachs International Corp.		Hambros Bank
Handelsbank N.W. (Overseas)	Hill Samuel & Co.	E. F. Hutton & Co. N.V.	The Industrial Bank of Kuwait K.S.C.
Istituto Bancario San Paolo di Torino	Jardine Fleming & Company	Kipeco Finance S.A.	Kitnet & Aitken
Kleinwort, Benson	Kreditbank N.V.	Kreditbank S.A. Luxembourg	Kuwait Financial Centre (S.A.K.)
Kuhn Loeb Lehman Brothers International		Kuwait Foreign Trading Contracting & Investment Co. (S.A.K.)	
Kuwait International Investment Co. S.A.K.	Lazard Brothers & Co.,		Manufacturers Hanover
Merrill Lynch International & Co.	B. Metzler seed. Sohn & Co.	Mitsubishi Bank (Europe) S.A.	Samuel Montagu & Co.
Morgan Grenfell & Co.	Morgan Stanley International	Nesbitt, Thomson	Nomura Europe N.V.
Norddeutsche Landesbank Girozentrale	Sal. Oppenheim jr. & Cie.	Orion Bank	Österreichische Länderbank
Pierson, Hidding & Pierson N.V.	PKBankers	Rothschild Bank AG	N. M. Rothschild & Sons
Sauwa Bank (Underwriters)	Sanyo Securities Co., Ltd.	Saudi Arabian Investment Company, Inc.	Scandinavian Bank
J. Henry Schroder Wagge & Co.	Schroders & Chartered	J. & A. Scrimgeour	Skandinaviska Enskilda Banken
Smith Barney, Harris Upham & Co.	Société Bancaire Barclays (Suisse) S.A.	Société Générale	Société Générale de Banque S.A.
Strauss, Tarnwell & Co.	Sumitomo Finance International	Svenska Handelsbanken	Swiss Bank Corporation (Overseas) Ltd.
Trade Development Bank	Union Bank of Switzerland (Securities)	Union de Banques Arabes et Françaises—U.B.A.F.	
United Overseas Bank Limited, Singapore	Vereins- und Westbank		M. M. Warburg-Brinckmann, Wirtz & Co.
S. G. Warburg & Co. Ltd.	Wardley	Westdeutsche Landesbank	Williams, Glyn & Co.
		Girozentrale	Wood Gundy

This announcement appears as a matter of record only



N.Z. FOREST PRODUCTS LIMITED

U.S. \$ 50,000,000

medium term loan

managed by

LLOYDS BANK INTERNATIONAL LIMITED

in association with

THE NATIONAL BANK OF NEW ZEALAND LIMITED

BANK OF MONTREAL

COMMERZBANK AKTIENGESSELLSCHAFT

MANUFACTURERS HANOVER LIMITED

provided by

BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION

BANK OF MONTREAL

COMMERZBANK AKTIENGESSELLSCHAFT

COMPAGNIE FINANCIERE DE LA DEUTSCHE BANK AG

KREDITBANK N.V.

LBI FINANCE (HONG KONG) LIMITED

MANUFACTURERS HANOVER TRUST COMPANY

MELLON BANK, N.A.

THE NATIONAL BANK OF NEW ZEALAND LIMITED

Agent Bank

LLOYDS BANK INTERNATIONAL LIMITED

A Member of the Lloyds Bank Group





[illegible][illegible]



[illegible]

ISSUE	COUPON DATES	REPAYMENT	SINKING FUND (STARTING)	PRICE		CURRENT YIELD	CURRENT YIELD TO MATURITY
				BID	ASKED		
<b>D-MARK BONDS</b>							
63% Brenner Autobahn 1968 (G)	1.2-1.8	1.8-74-S2	1.8-78	103 1/2	104	8.51%	8.02%
63% Donaukraftwerke 1959 (G)	1.2-1.8	1.2-65-84	—	102 1/2	103 1/2	8.53%	5.49%
61% Donaukraftwerke 1973 (G)	1.3	1.3-73-87	1.12-77	103 1/2	103 1/2	8.41%	8.96%
74% Girozentrale Wien 1975	1.1	1.1-81	—	104	104	8.56%	4.92%
74% Girozentrale Wien 1976	1.1-1	1.1-83	—	108	109	8.67%	5.41%
81% IAKW 1973 (G)	1.3	1.5-80-85	—	109 1/2	110	7.97%	6.98%
81% Kelag 1973 (SG)	1.3	1.3-79-88	1.2-78	105	108 1/2	8.41%	8.05%
81% Oester. Draufkraftwerke 1975 (G)	1.3	1.3-81-85	—	112 1/2	112 1/2	7.78%	8.48%
81% Oester. Elektrizitätsw. 1967 (G)	1.2-1.8	1.2-73-87	—	103 1/2	104	8.53%	8.11%
74% Rep. Oesterreich 1968	1.4-1-10	1.4-73-82	1.4-72	106	107 1/2	8.53%	8.11%
61% Rep. Oesterreich 1969	1.4-1-10	1.4-75-88	1.1-74	104	104 1/2	8.23%	6.59%
94% Rep. Oesterreich 1973	1.3	1.2-83	—	111 1/2	112 1/2	8.04%	8.10%
61% Rep. Oesterreich 1975	1.3	1.5-78-87	1.2-77	109	109 1/2	7.78%	7.10%
74% Rep. Oesterreich 1976	2.5	2.5-83-88	1.1-82	119	111 1/2	8.99%	7.18%
63% Rep. Oesterreich 1977	1.4	1.4-83-85	2.1-83	107 1/2	107 1/2	8.28%	5.45%
63% Tauernkraftwerke 1968 (G)	1.2-1.8	1.2-74-83	1.0-73	103 1/2	108	8.29%	5.86%
74% Tauernkraftwerke 1968 (G)	1.2-1.8	1.2-74-83	—	104 1/2	105 1/2	8.67%	5.90%
74% Tauernautobahn 1974 (G)	1.7	1.7-81	—	113 1/2	113 1/2	8.41%	5.11%
61% Voest 1973	1.1-10	1.1-79-88	1.6-78	106	106	7.90%	7.26%
61% Voest 1975	1.6	1.6-81-85	—	108 1/2	109 1/2	7.81%	6.91%
61% Voest 1977	1.6	1.6-84-89	—	104 1/2	105 1/2	8.44%	6.15%
74% Wien 1968	1.6-1-12	1.6-74-83	1.6-73	104	104 1/2	8.71%	6.13%
61% Wien 1975	1.8	1.8-79-84	—	108 1/2	109 1/2	7.57%	6.49%
<b>U.S. BONDS</b>							
62% Rep. Austria 1964	31.1-34.7	31.1-71-84	3.1-70	98 1/2	99	6.98%	8.38%
62% Rep. Austria 1967	15.3-15.9	15.3-72-82	15.3-71	98 1/2	98 1/2	6.80%	7.07%
62% Rep. Austria 1968	15.3	15.3-70-80	15.8-77	99 1/2	100 1/2	8.75%	8.75%
62% Aust. Electricity 1968 (G)	1.7-10	1.7-70-86	—	99 1/2	100	8.69%	8.18%
62% Aust. Electricity 1970	1.4-1-10	1.1-81-80	1.1-70-79	99 1/2	100	8.77%	6.91%
52% Alpine Montan 1965 (G)	15.6	15.6-72-85	15.6-71	94 1/2	94 1/2	6.08%	6.72%
62% Tauernautobahn 1977 (G)	15.3	15.3-88-87	15.3-82	97 1/2	98 1/2	8.41%	8.35%
62% Voest 1968 (G)	23.10	23.10-70-78	23.10-69	93 1/2	94 1/2	5.78%	6.86%
62% Transalpine Fin.	21.10	21.10-70-85	21.10-69	96 1/2	97	6.72%	7.06%
62% Transalpine Fin. Hldg. 1966	31.7	31.7-70-85	31.7-69	97 1/2	98 1/2	6.89%	7.10%
62% Transalpine Fin. Hldg. 1967	31.1	31.1-73-82	31.1-72	99	99 1/2	6.93%	6.75%
62% Transalpine Fin. Hldg. 1967	30.4	30.4-74-83	30.4-73	98 1/2	98 1/2	6.55%	7.10%
74% Trans-Austria Gasline 1973	15.1	15.1-77-88	15.1-76	99 1/2	99 1/2	8.35%	9.08%
<b>AUSTRIAN SCHILLING BONDS</b>							
91% Kontrollbank 1974 (G)	14.8	14.8-79	—	100 1/2	101 1/2	9.38%	8.50%
<b>DOMESTIC ISSUES</b>							
8% Investitionsanleihe 1973/I/B	15.2	15.2-77-81 (101)	—	100	100 1/2	7.98%	8.34%
8% Investitionsanleihe 1973/II/B	8.7	8.7-76-81 (102)	—	100	100 1/2	7.96%	8.36%
8% Investitionsanleihe 1974/I/B	1.4	1.4-76-82 (104.50)	R	102 1/2	102 1/2	7.81%	8.24%
8% Investitionsanleihe 1974							

market support is concerned. One more reason for many investors to buy Austrian bonds. Girozentrale Vienna is Austria's second largest bank. Issuing as it does its own securities is looked after by foreign companies on the Vienna Börse

**GZ**

or co-managing almost all domestic issues and having underwritten more than 220 issues on the Euro-Capital-Market in 1977 alone, Girozentrale Vienna is one of the leading Austrian institutions handling securities.

**Girozentrale Vienna**  
**Market Maker in Austrian Eurobonds**

Managers Securities Trading Department: Karl VOMACKA, Tel.: 72 94 70, Telex: 13195 - Deputy Manager, Export Dealer: Manfred LILL, Tel.: 72 94 72, Telex: 13195 - Eurobond Dealer: Herbert STENDERPER, Tel.: 72 94 65, Telex: 13195 - Austrian Schallaböck's Dealer: Herbert PIERINGER, Tel.: 72 94 72.







1970	0.00	8-25	1/12/1986	5-22	8.00	1001	1581	1790	15	900 975
1974	100.00	7-25	1/12/1986	97 7/28	14.12	9-22	8-43	9.00	60	2.00 97 517
1975	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	10.00	10.00	10.00 97 517
1976	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1977	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1978	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1979	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1980	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1981	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1982	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1983	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1984	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1985	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1986	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1987	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1988	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1989	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1990	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1991	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1992	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1993	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1994	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1995	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1996	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1997	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1998	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
1999	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2000	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2001	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2002	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2003	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2004	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2005	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2006	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2007	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2008	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2009	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2010	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2011	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2012	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2013	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2014	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2015	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2016	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2017	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2018	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2019	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2020	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2021	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2022	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2023	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2024	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2025	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2026	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2027	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2028	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2029	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2030	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2031	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2032	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2033	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2034	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2035	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2036	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2037	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2038	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2039	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2040	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2041	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2042	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2043	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2044	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2045	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2046	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2047	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2048	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2049	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2050	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2051	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2052	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2053	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2054	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2055	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2056	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2057	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2058	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2059	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2060	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2061	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2062	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2063	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2064	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2065	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2066	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2067	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2068	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2069	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2070	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2071	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2072	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2073	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2074	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2075	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2076	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2077	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2078	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9.25	80	1.75 97 517
2079	100.00	7-25	1/12/1986	10.08	8.27	9-22	9-30	9		

MORGAN STANLEY INTERNATIONAL  
 BANQUE BRUXELLES LAMBERT S.A.  
 DRESDNER BANK AKTIENGESSELLSCHAFT  
 UNION BANK OF SWITZERLAND (SECURITIES)  
 Limited

BI INVESTMENT COMPANY  
 AM-ROTTERDAM BANK N.V.  
 ALSEBY STUART SHIELDS  
 S.A. SVIZZERA ITALIANA  
 AMERICA INTERNATIONAL  
 ZWILLER, KURZ, BUNGENER (OVERSEAS)  
 U INTERNATIONAL LTD.  
 ABRE ET INTERNATIONALE D'INVESTISSEMENT (S.A.I.I.)  
 GENERALE DU LUXEMBOURG S.A.  
 INTERNATIONALE A LUXEMBOURG S.A.  
 DE NEUFLIZE, SCHLUMBERGER, MALLET  
 POPULAIRE SUISSE S.A. LUXEMBOURG  
 BROTHERS & CO.  
 CHE LANDESBANK GIROZENTRALE  
 BANK  
 PINSCHOF SCHOELLER  
 E & CO.  
 CHASE MANHATTAN  
 DE BANQUE ET D'INVESTISSEMENTS (UNDERWRITERS) S.A.  
 ILLINOIS  
 INDUSTRIEL D'ALSACE ET DE LORRAINE  
 U NORD  
 ITALIANO (UNDERWRITERS) S.A.  
 DAUS & CO. DELBRÜCK & CO. DEN DANKSKE BANK  
 THE GIROZENTRALE  
 DE KOMMUNALBANK—  
 SECURITIES  
 THE GIBSONBILIARE S.A.  
 IA EUROPA INTERMOBILIARE  
 LEMING & CO.  
 NSCHAFTLICHE ZENTRALBANK AG  
 TRALE UND BANK DER ÖSTERREICHISCHEN SPARKASSEN  
 ELDS HAMBROS BANK HANDELSBANK N.W. (OVERSEAS)  
 E LANDESBANK  
 ZENTRALE  
 BANCARIO SAN PAOLO DI TORINO  
 AYN'S HANDELSBANK  
 B LEHMAN BROTHERS  
 INTERNATIONAL FINANCE CO. S.A.K. "KIFCO"  
 INVESTMENT COMPANY (S.A.E.)  
 RERES & CO.  
 OUNG, WEIR INTERNATIONAL  
 R SEEL SOHN & CO.  
 RENFELT & CO.  
 E  
 NHEIM JR. & CIE.  
 DECK, VAN CAMPENHOUT, KEMPEN S.A.  
 N  
 SCHILD & SONS  
 ADVISEA ENSKILDA BANKEN  
 ANCAIRE BARCLAYS (SUISSE) S.A.  
 GENERALE DE BANQUE S.A.  
 KERNAS BANK  
 HANDELSBANKEN  
 UND WESTBANK  
 SVISKE LANDESBANK  
 ROZENTRALE

ALGEMENE BANK NEDERLAND N.V.  
 ANDRESEN'S BANK A.S.  
 BANCA COMMERCIALE ITALIANA  
 BANCA NAZIONALE DEL LAVORO  
 THE BANK OF BERMUDA  
 BANK JULIUS BAER INTERNATIONAL  
 BANKERS TRUST INTERNATIONAL  
 BANQUE FRANCAISE DU COMMERCE EXTERIEUR  
 BANQUE DE L'INDOCHINE ET DE SUEZ  
 BANQUE NATIONALE DE PARIS  
 BANQUE DE PARIS ET DES PAYS-BAS (SUISSE) S.A.  
 BANQUE ROTHSCHILD  
 BAYERISCHE HYPOTHEKEN-UND WECHSEL-BANK  
 BAYERISCHE VEREINSBANK JOH. BERENBERG, GOSSLER & CO.  
 BERLINER HANDELS-UND FRANKFURTER BANK  
 BLYTH EASTMAN DILLON & CO.  
 BURNS FRY  
 CHEMICAL BANK INTERNATIONAL  
 COMMERCIAL BANK  
 CAISSE DES DEPOTS ET CONSIGNATIONS  
 COMPAGNIE MONEGASQUE DE BANQUES S.A.  
 CREDIT COMMERCIAL DE FRANCE  
 CREDIT INDUSTRIEL ET COMMERCIAL CREDIT LYONNAIS  
 CREDIT SUISSE WHITE WELD  
 CREDITANSTALT-BANKEVEREIN  
 DAI-CHI KANGYO BANK NEDERLAND N.V.  
 DAIWA EUROPE N.V.  
 DEN NORSKE CREDITBANK  
 DEUTSCHE BANK  
 DEUTSCHE GENOSSENSCHAFTSBANK  
 EFFECTENBANK-WARBURG  
 FINACOR  
 FIRST BOSTON (EUROPE)  
 FUJI INTERNATIONAL FINANCE  
 GEFINA INTERNATIONAL  
 GIBBS HOLDINGS LTD.  
 GOLDMAN SACHS INTERNATIONAL CORP.  
 HENTSCHE AND CO INTERNATIONAL  
 I.B.J. INTERNATIONAL  
 KIDDER, PEABODY INTERNATIONAL  
 KREDIETBANK S.A. LUXEMBOURGEOISE  
 KUWAIT FOREIGN TRADING CONTRACTING & INVESTMENT CO. (S.A.K.)  
 KUWAIT INTERNATIONAL INVESTMENT CO. S.A.K.  
 LAZARD BROTHERS & CO.  
 LAZARD FRERES ET CIE  
 LLOYDS BANK INTERNATIONAL  
 MANUFACTURERS HANOVER  
 MERRILL LYNCH INTERNATIONAL & CO.  
 MITSUBISHI BANK (EUROPE) S.A.  
 NEDERLANDSCHE MIDDENSTANDSBANK N.R.F.  
 THE NIKKO SECURITIES CO., (EUROPE) LTD.  
 ORION BANK  
 PAINTE WEBBER JACKSON & CURTIS SECURITIES  
 PICTET INTERNATIONAL  
 RICHARDSON SECURITIES OF CANADA  
 ROTHSCHILD BANK AG  
 J. HENRY SCHROEDER WAGG & CO.  
 SMITH BARNEY, HARRIS UPHAM & CO.  
 SOCIETE GENERALE  
 SOCIETE GENERALE ALSACIENNE DE BANQUE  
 SOCIETE PRIVEE DE GESTION FINANCIERE  
 SOFIAS S.p.A.  
 STRAUSS, TURNBULL & CO.  
 SUMITOMO FINANCE INTERNATIONAL  
 TRADE DEVELOPMENT BANK  
 VERBAND SCHWEIZERISCHER KANTONALBANKEN  
 J. VON TOSSEL & CO.  
 S. G. WARBURG & CO. LTD.  
 WARLEY  
 YAMAICHI INTERNATIONAL (EUROPE)  
 Limited

investment proceeds for the changes in relative parities of the currencies comprising the new and old unit of account formulae.

vertibles in that the bond is denominated US\$1000. and each bond



[illegible]

10 DOLLAR SUBORDINATED (DOWCORP)														
ISSUED/ ESTIMATED YR (AR)	YEARS TO Maturity	ISSUE PRICE	COUPON/MATURITY	PRICE	YIELD TO Maturity	YIELD TO Maturity	CURRENT YIELD	YIELD TO Maturity	CALLS/PUTS WARRANTS	CONV. WARRANTS	RENTAL WARRANTS	SECURITY WARRANTS	MARKET MAKERS	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	
30-00	1976	100.00	EUROPEAN CALL & STEEL	9 101 7/8	4.78	4.49	8.13	8.26	100.00	100.00	100.00	100.00	339 33 105 428 428	



ISSUED/ ESTIMATED D/S (YR)	YEAR OF ISSUE	ISSUE PRICE	BORROWER/ COUPON MATURITY	PRICE	LIFE/ AVERAGE LIFE	YIELD TO MATURITY/ YIELD TO AVERAGE LIFE	CURRENT YIELD	YIELD TO NEXT CALL/ NEXT CALL DATE	CALL NOTICE (DAY)/ NEXT CALL DATE	NET FV AMOUNT FIRST P/DATE	DELIVERY SECURITY/AGENCY	LOAD MANAGEMENT	MARKET MAKING
US DOMESTIC-FLOATING RATE (CONTINUED)													
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
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25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
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25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.625 21/11/1981 S	88 3/4	3.65	7.72	100.00	107 1/2	300	100.00	107 1/2	37 1/2	517 35 210 225 905 1581 151 925 920 935
25.00	1976	100.00	UNITED OVERSEAS INC 7 1/4 7.										

ESTIMATED D/E (MAD)	ISSUE PRICE	BORROWER'S COUPON MATURITY	PRICE	LAST AVAILABLE	YIELD TO WAREHOUSE LIFE	CURRENT YIELD	YIELD TO NEXT CALL / NEXT CALL DATE	CALL OPTION (BANKS) / NEXT CALL DATE	NEXT D/E AMOUNT / FIRST D/E DATE	SECURITY GUARANTEE / LENDER	LEAD MANAGER	MARKET MAKERS
40.00	10/16	HERST WILCOX STREET	102	5.56	8.90	8.33			15.00	NP		601 602 604 605
40.00	99-50	15/11/1993							15.00	NP		601 602 604 605
50.00	1972	LAGON	88 5/8	1.83	7.88	6.59			15.50	NP	237	601 602 604 605
50.00	100.50	0.50 1/11/1979		1.50	8.42				1970	NP		601 602 604 605
50.00	1972	KUDAMPAH	88 5/8	1.42	8.00	3.77			15.50	NP	238	601 602 604 605
50.00	99-75	3.75 1/11/1993		3.75	8.18				1970	NP		601 602 604 605
50.00	1972	KUDAMPAH	101	0.85	8.70	6.93			13.50	NP	238	601 602 604 605
50.00	100.00	7.00 1/12/1978							1970	NP		601 602 604 605
50.00	1975	KUDAMPAH	109 7/8	4.00	8.80	8.05			13.50	NP	238	601 602 604 605
50.00	99-75	8.50 1/11/1993							1970	NP		601 602 604 605
50.00	1976	KUDAMPAH CALL & STEEL	104 1/2	4.88	9.82	7.66			13.50	NP	238	601 602 604 605
50.00	99-75	8.00 1/11/1993							1970	NP		601 602 604 605
50.00	1972	KUDAMPAH INVESTMENT BANK	99	0.46	8.23	6.94			10.00	NP	238	601 602 604 605
50.00	100.00	6.00 1/12/1978		0.46	8.42				1970	NP		601 602 604 605
75.00	1976	KUDAMPAH INVESTMENT BANK	103 7/8	5.64	7.06	7.70			10.00	NP	238	601 602 604 605
75.00	99-75	8.00 1/11/1993							1970	NP		601 602 604 605
75.00	1977	KUDAMPAH INVESTMENT BANK	102 7/8	5.88	7.16	7.70			10.00	NP	238	601 602 604 605
75.00	100.00	8.00 1/12/1984							1970	NP		601 602 604 605
75.00	1978	KUDAMPAH INVESTMENT BANK	106 1/2	6.92	7.04	8.13			10.00	NP	238	601 602 604 605
75.00	100.00	9.00 1/12/1982							1970	NP		601 602 604 605
75.00	1978	KUDAMPAH INVESTMENT BANK	103 7/8	6.17	6.37	6.19			10.00	NP	238	601 602 604 605
75.00	100.00	9.50 1/12/1982							1970	NP		601 602 604 605
75.00	1978	GOVERNMENT OF MALAYSIA	87 7/8	2.1	7.81	8.00			15.50	NP	237	601 602 604 605
75.00	100.00	6.75 1/11/1980		7.21	8.64				1970	NP		601 602 604 605
75.00	1972	GOVERNMENT (P.C.I.)	87 7/8	1.98	8.88	6.54			15.50	NP	237	601 602 604 605
75.00	100.00	6.00 1/12/1979		1.98	7.12				1970	NP		601 602 604 605
75.00	1975	GOVT. OF PENJALAM	95 3/4	1.66	8.50	8.27			15.50	NP	238	601 602 604 605
75.00	100.00	6.00 1/12/1979							1970	NP		601 602 604 605
75.00	1975	GOVT. OF PENJALAM	100 3/4	4.88	8.67	7.64			15.50	NP	238	601 602 604 605
75.00	99-50	7.50 1/11/1993		</								



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April 78	Current	Yield	6 April
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Telex: 8811043 SUNFIN G      AIBD Market Maker No. 982

Algemene Bank Nederland N.V.	A. E. Ames & Co.	Amer Bank	Arnhold and S. Bleichroeder, Inc.
Beche Halsey Stuart Shields	Banka Commerciale Italiana	Banka Nazionale del Lavoro	
Bank of America International	Bank Julius Baer International	Bank Mees & Hope NV	
The Bank of Tokyo (Holland) N.V.	Bankers Trust International	Banque Française du Commerce Extérieur	
Banque Française de Dépôts et de Titres	Banque Internationale à Luxembourg S.A.	Banque Générale du Luxembourg S.A.	
Banque de l'Indochine et de Suez	Banque Nationale de Paris		
Banque de Neufville, Schlumberger, Mallet	Banque de Paris et des Pays-Bas (Suisse) S.A.		
Banque Populaire Suisse S.A.	Banque de l'Union Européenne	Banque Worms	
Barclays Bank International	Baring Brothers & Co.,	Bayerische Landesbank	Bayerische Vereinsbank
Berlin Bank	Berliner Handels- und Frankfurter Bank	Blyth Eastman Dillon & Co.	
Caisse des Dépôts et Consignations	James Capel & Co.	Casanova & Co.	Centrale Rabobank
Chase Manhattan	Christiania Bank og Kreditkasse	Compagnie de Banque et d'Investissements	
Compagnie Monégasque de Banque	County Bank	Crédit Commercial de France	Crédit Lyonnais
Creditanstalt für Bankverein	Credito Italiano	Daiwa Europe N.V.	Deilbrück & Co.
Den Danske Bank	Den norske Creditbank	Deutsche Girozentrale	DG BANK
Dillon, Read Overseas Corporation	Dominion Securities	Dresdner Bank	Drexel Burnham Lambert
Effectenbank-Warburg	Euromobiliare S.p.A.	European Banking Company	
First Boston (Europe)	Robert Fleming & Co.	Fuji International Finance	
Gefina International Ltd.	Genossenschaftliche Zentralbank AG	Antony Gibbs Holdings Ltd.	
Girozentrale und Bank der Österreichischen Sparkassen	Goldman Sachs International Corp.		
W. Greenwell & Co.	Groupement des Banquiers Privés Genevois	Hambros Bank	
E. F. Hutton & Co. N.V.	Istituto Bancario San Paolo di Torino	Kidder, Peabody International	
Kjøbenhavns Handelsbank	Kleinwort, Benson	Kuhn Loeb Lehman Brothers International	
Lazard Brothers & Co.,	Lazard Frères et Cie	Lloyds Bank International	London & Continental Bankers
McLeod, Young, Weir International	Manufacturers Hanover	Merrill Lynch International & Co.	
Samuel Montagu & Co.	Morgan Stanley International	Nederlandsche Middenstandsbank N.V.	
The Nikko Securities Co., (Europe) Ltd.	Nippon European Bank S.A.	Nomura Europe N.V.	
Norddeutsche Landesbank	Nordic Bank	Sal. Oppenheim jr. & Cie.	Orion Bank
Österreichische Länderbank	Pierson, Halding & Pierson N.V.	PKbanken	Postipankki
Rothschild Bank AG	N. M. Rothschild & Sons	Solomon Brothers International	Scandinavian Bank
J. Henry Schroder Wagg & Co.	Skandinaviska Enskilda Banken	Smith Barney, Harris Upham & Co.	
Société Bancaire Barclays (Suisse) S.A.	Société Générale	Société Générale de Banque S.A.	
Société Séquanaise de Banque	Sofias S.p.A.	Sparbankernas Bank	Strauss, Turnbull & Co.
Sumitomo Finance International	Svenska Handelsbanken	Swiss Bank Corporation	
Verein- und Westbank	M. M. Warburg-Brinckmann, Wirtz & Co.	Warburg Paribas Becker	
White, Weld & Co.	Dean Witter Reynolds International, Inc.	Yamaichi International (Europe)	



**BANKERS TRUST INTERNATIONAL LIMITED**

The interest rates per annum applicable to the following US\$ Floating Rate Note Issues were announced during March. These rates are quoted for information purposes only, and should be confirmed prior to the execution of a specific transaction. The rates quoted apply to the six-month periods shown.

Interest rates applicable to the issues listed below will be announced during April.

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**JAPANESE DOLLAR QUOTED  
SECURITIES**

## WestLB Euro-Deutschmarkbond Quotations

	Issue	Middle Price	Current Yield	Life*	Yield to Maturity	Reg.-Int. D—Maturity drawing by lot at year S—Sinking fund
61%	Shell, Incl. 72/87	105.60	4.16	4.83	5.16	1.478—87S
61%	Shell Incl. 77/87	110.00	4.14	8.78	5.21	1.285—87D
61%	Ship. Co. N. Zealand 75/80 P (G)	106.00	7.78	2.17	5.24	3.680
61%	Ship. Co. N. Zealand 75/82 IP (G)	105.75	8.04	4.14	6.85	22.582
61%	Ship. Co. N. Zealand 75/82 IIP (G)	105.75	8.04	4.16	6.85	22.582
7%	Siemens Europe 66/81	104.50	6.70	2.04	4.63	1.1170—81S
7%	Singapore 72/82	103.75	6.75	2.20	5.24	1.778—82S
61%	Singapore 77/83	103.20	6.30	5.08	5.75	1.583
61%	Singapore Airli. 76/83 (G)	106.25	8.24	2.77	6.21	1.279—83D
61%	Sura Kvina	103.75	8.19	4.02	7.54	1.676—85D
61%	S.M.C. 68/83 (G)	105.00	6.19	2.93	4.62	1.1072—83S
71%	Soc. Dev. 68/83 (G)	106.85	7.02	5.25	5.94	1.480—86D
71%	Soc. Dev. Res. 77/82 (G)	99.50	6.20	1.47	6.38	16.1283—92D
9%	Soc. Mar. Fin. 75/83P	107.50	8.37	3.28	5.38	1.579—83D
61%	South Africa 69/84	98.60	6.85	6.00	7.16	1.473—84S
61%	South Africa 70/85	102.85	8.26	3.89	7.78	1.1176—85S
71%	South Africa 71/86	102.00	7.60	4.54	7.35	1.1177—86S
71%	South Africa 72/87	97.40	7.19	9.58	7.38	1.1178—87S
71%	South Afr. Broadc. 78/81P (G)	101.00	7.92	2.92	7.60	1.381
71%	South Africa Railway 73/88 (G)	98.80	6.38	10.17	7.65	1.679—88S
91%	South Africa Railway 75/80P (G)	102.35	9.02	1.47	8.80	1.678—80D
91%	South Africa Railway 75/80 (G)	105.75	8.25	2.25	6.40	1.678—80D
81%	South Africa Railway 77/80P (G)	101.00	8.17	2.33	7.73	1.879—80D
7%	South Scot. Bk. 73/88 (G)	105.85	6.61	5.11	5.64	1.279—88S
61%	Spain 77/84	102.00	6.62	9.33	6.35	1.884
61%	Spain Chart. Bank 78/88	102.25	6.36	9.75	6.18	1.188
61%	Stastofere 78/85	104.50	6.70	5.38	5.99	1.382—85D
61%	Stetelmak 74/85	100.00	6.20	5.38	5.99	1.1080
61%	Stockholm City 75/87	107.50	8.11	3.86	5.38	15.483—83D
61%	Stockholm County 75/87	101.00	7.93	4.80	6.20	1.479—87D
71%	Studeb. Worth. 69/79	104.25	6.95	1.33	3.98	1.879
81%	Sumitomo Metal 75/82	110.50	7.69	4.25	5.64	1.782
71%	Sun Oil Int. Fin. 73/88	105.75	7.09	5.58	6.24	1.879—88S
71%	Sun Oil Int. Fin. 73/88	103.50	7.00	5.08	6.41	1.279—88S
71%	Swedish 73/88	98.80	6.38	10.17	7.65	1.381
71%	Swenska Tändst. 75/83	104.75	6.44	4.74	5.58	1.378—87S
71%	Swedish Inv. Bk. 72/87	104.75	6.44	4.74	5.58	1.378—87S
71%	Swedish Inv. Bk. 73/88	106.25	6.59	5.19	5.58	1.379—88S
81%	Swedish Inv. Bk. 75/83	106.00	8.02	3.63	6.57	1.680—83S
61%	Sweden 77/84	106.00	6.10	6.08	5.20	1.584
61%	Sweden 77/89	102.25	8.97	11.67	3.73	1.1283—89S
61%	Taenra Corp. 75/80P	106.50	8.92	1.96	5.88	16.380
61%	Taenra Corp. 75/80P	100.00	8.92	1.96	5.88	1.1079
61%	Taenrautohahn 75/82 (G)	113.00	8.41	3.25	5.05	1.781
9%	Taenrautohahn 75/82P (G)	110.75	8.13	3.92	5.84	1.382
9%	Taenrautohahn 75/83P (G)	110.00	8.18	4.92	6.55	1.383
51%	Taenrautohahn 78/83 (G)	100.40	5.48	10.28	5.45	1.484—83S
71%	Taenrakraftwerke 68/83 (G)	105.00	6.67	2.98	5.11	1.274—83D
71%	Taenrakraftwerke 68/83 (G)	103.40	6.29	2.84	5.26	1.974—83S
61%	Tateno 73/73	100.00	7.41	6.88	6.83	1.1182—93S
61%	Tateno 73/73	108.50	6.46	3.92	6.49	1.382
61%	Thyssen Car. Fin. 75/82P	108.50	7.83	4.00	6.04	1.482
61%	Thyssen Car. Fin. 75/82P	108.00	7.44	4.25	6.05	1.782
61%	Thyssen Inv. 66/81	104.75	6.21	1.90	3.86	1.372—81D
71%	Tokyo El. Power 69/84	106.00	6.84	3.56	5.44	1.1275—84D
91%	Toray Ind. 75/80P	106.50	8.92	1.86	5.70	1.1078—87S
61%	Trnf. House Fin. 72/87	105.00	6.50	9.50	6.49	1.1078—87S
61%	Trinited & Tobago 78/83P	98.20	6.00	10.00	6.40	1.781
61%	Trondhejm	102.50	6.59	3.60	5.93	1.1272—83S
61%	Trondheim	102.00	8.33	0.17	—	1.1272—83S
71%	TRW Int. Fin. 69/84	104.00	7.21	3.38	6.27	1.1075—84S
61%	TVO Power 78/88 (G)	99.20	6.04	7.77	6.11	1.284—88S
91%	Unilever 75/81P	111.75	8.72	3.67	6.06	1.1281
91%	Unilever 75/87	114.00	7.46	6.45	5.83	1.581—87S
61%	Unt. Arab Emirs 77/82P	100.75	6.70	4.08	6.53	30.482
61%	Venezuela 68/88	100.00	6.00	5.93	5.75	1.1079—83S
61%	Venezuela 68/88	99.50	6.03	5.92	5.07	1.184—88S
7%	Vienna 68/83	104.25	6.11	3.11	5.57	1.674—83S
61%	Vienna 75/84	109.00	7.57	3.76	5.52	1.879—84D
51%	Vienna 77/84P	103.00	5.58	6.71	5.20	15.1284
81%	Voest-Alpine 73/88	108.50	7.83	6.19	6.76	1.1079—84D
81%	Voest-Alpine 75/85	108.75	7.82	5.10	6.43	1.681—85D
81%	Voest-Alpine 77/89	104.50	6.46	8.58	6.06	1.684—89D
61%	Wells Fargo ex. w. 73/88	104.00	6.00	5.88	5.67	1.1171—88S
51%	Worldbank 65/85	102.00	5.39	3.78	4.97	1.880
61%	Worldbank 66/86	101.30	6.00	4.38	5.29	1.880
61%	Worldbank 69/84	103.75	6.27	3.18	5.18	1.675—84D
61%	Worldbank 68/84P	104.00	6.25	3.59	5.33	1.177—84D
61%	Worldbank 69/84P	103.75	6.27	3.18	5.18	1.177—84D
61%	Worldbank 69/84P	101.50	5.91	2.89	5.43	1.477—84D
81%	Worldbank 70/80	109.25	7.78	2.33	4.33	1.880
81%	Worldbank 70/86	108.25	7.39	4.11	5.68	1.177—86D
71%	Worldbank 71/86	106.50	7.04	3.98	5.63	1.677—86D
71%	Worldbank 71/86 II	106.85	7.07	4.28	5.71	1.177—86D
61%	Worldbank 72/82	107.00	6.07	2.55	6.64	1.782
61%	Worldbank 72/87	104.35	6.47	4.73	5.67	1.378—87D
61%	Worldbank 73/83	107.70	6.27	4.83	4.92	1.283
61%	Worldbank 73/88	102.85	6.20	5.35	5.74	1.579—88D
61%	Worldbank 75/82P	110.00	7.50	4.17	4.49	1.682
8%	Worldbank 75/82	113.25	7.06	4.67	4.76	1.1282
81%	Worldbank 75/83	113.50	7.22	5.25	5.23	1.783
8%	Worldbank 76/82P	109.75	7.29	4.33	5.40	1.882
71%	Worldbank 76/82P	109.00	7.11	4.33	5.43	1.1082
71%	Worldbank 76/83	110.30	6.80	5.08	5.14	1.1082
71%	Worldbank 76/83	110.70	6.00	5.50	5.43	1.1083
71%	Worldbank 76/83	104.50	6.46	5.67	5.79	1.1283
61%	Worldbank 76/83P	113.00	7.08	5.83	5.34	1.284
51%	Worldbank 77/82P	102.75	5.35	4.46	4.79	15.982
7%	Worldbank 77/85P	107.25	6.53	6.90	7.0	1.385
61%	Worldbank 77/85P	104.00	6.25	7.08	5.79	1.585
61%	Worldbank 77/85	114.5	5.76	7.46	5.31	15.985
7%	Worldbank 77/87	108.15	6.47	8.75	5.78	1.187
71%	Worldbank 77/87	105.25	6.18	9.08	5.75	5.875
61%	Worldbank 77/87	99.25	6.76	10.30	5.77	1.287—90D
61%	Worldbank 78/83	104.50	6.46	2.84	5.09	1.972—83S
71%	Yokohama 69/84 (G)	106.50	5.97	3.40	4.96	30.9723—94S
8%	Yokohama 71/86 (G)	107.50	7.44	4.34	5.97	1.877—86S
81%	Yosida Kogyo 75/80P	106.37	8.23	2.25	5.63	1.780
81%	Yugosl. Inv. Bank 77/85P	102.25	7.82	4.08	7.33	15.1281—85D

- “Life” and “Maturity” appear in years and decimals of years and are—in this context—calculated as follows:
  - co final maturity in case of a lump-sum repayment
  - co final maturity in case of a sinking fund issue, whenever the quoted price is below 100
  - to average life in case of a sinking fund issue, whenever the quoted price is above 100
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- P Private Placement (the smallest denomination may be larger than the usual DM 1,000 of public issue)
- G Government Guaranty

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**The following funds include Eurobond issues within their portfolios**

**Quotations & Yields as at  
31st March, 1978**

**SOCIETE GENERAL De BANQUE**  
**BANQUE GENERALE Du LUXEMBOURG**

Fund	Price	First Issue Price	Yield %	Div Date
Rentinvest	LuxFr 848	LuxFr 1000	8.39	21 Nov. (1989)
Capital Rentinvest	LuxFr 1306	LuxFr 1000	(Capitalisation)	
	1977/78		1975/78	
	High	Low	High	Low
Rentinvest	LuxFr 917	LuxFr 839	LuxFr 917	LuxFr 911
Capital Rentinvest	LuxFr 1309	LuxFr 1199	LuxFr 1309	LuxFr 945

*This announcement appears as a matter of record only.*

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Van Campenhout & Cie  
115 Kredietbank N.V.

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225 Banque Louis-Dreyfus  
205 Banque Nationale de Paris  
75009 Paris 16, Boulevard des Italiens  
P 226-4700/523 5500  
T 650814/650819  
210 Credit Commercial de France Paris  
215 Credit Lyonnais  
215 E. F. Botton Services S.A.R.L.  
220 Interbanque

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300 Commerzbank AG  
6000 Frankfurt Neue Mainzer Strasse 33-36  
P 13821 T 416111  
T 416345  
305 Deutsche Bank AG  
6000 Frankfurt Grosse Gallusstrasse 10-14  
Junghofstrasse 5-11  
P 21 41 T 41 1976  
306 Dresdner Bank AG  
6000 Frankfurt Gallusstrasse 7-8  
P 2631 T 414 801  
P 23 08 31 T 41 230  
307 Westdeutsche Landesbank Girozentrale  
4000 Düsseldorf Friedrichstrasse 56  
P 826 31 22 T 888 1882

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35-Banque Lambert S.C.S.  
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46-Société Générale de Banque S.A.  
57-Nesbitt, Thomson Ltd.  
64-Wood Gundy Ltd.  
72-Privatbanker Aktiengesellschaft  
77-McLeod, Young Weir & Co.  
93-Banque Nationale de Paris  
93-Banque de Paris et des Pays-Bas  
94-Banque Rothschild  
96-Banque de l'Union Européenne  
103-Credit Commercial de France  
104-Credit Industriel et Commercial  
108-Credit Lyonnais  
112-Lazard Frères & Cie

117-Société Générale  
123-Western American Bank (Europe)  
138-Commerzbank/Banco di Roma/Credit  
Lyonnais  
140-Commerzbank AG  
143-Deutsche Bank AG  
150-Wardley Ltd.  
157-Pikbank  
158-Kuwait Int. Inv. Co. S.A.K.  
162-Arab Financial Consultants  
162-Union Bank of Switzerland  
(Securities) Ltd.  
178-Westdeutsche Landesbank  
Girozentrale  
183-Jardine Fleming & Co.  
186-Banca Commerciale Italiana  
186-Banca Nazionale del Lavoro  
190-Banco di Roma  
214-Williams Glyn & Co.  
218-Orion Bank Ltd.  
218-Kuwait Int. Co. S.A.K.  
231-Banque Européenne du Luxembourg  
S.A.  
232-Banque Générale du Luxembourg S.A.  
233-Banque Internationale à Luxembourg  
S.A.

224-Banque Lambert, Luxembourg, S.A.  
229-Investors Bank, Luxembourg, S.A.  
230-Kreditbank S.A. Luxembourg  
236-UBS DE Corp.  
237-Blyth, Eastman Dillon & Co. Int.  
237-Algemene Bank Nederland N.V.  
238-Amsterdam-Rotterdam Bank N.V.  
243-Bank Mees & Hope N.V.  
247-Nederlandsche Credietbank N.V.  
248-Nederlandsche Middenstandsbank N.V.  
254-Pierson, Helderling & Pierson  
258-Royal Bank of Scotland  
272-Svenska Handelsbanken  
273-Kuwait Foreign Trading Contracting  
& Investment Co.  
292-Bankers Trust International Ltd.  
297-Barclays Bank International Limited  
298-Baring Brothers & Co.  
316-Hill Samuel & Co. Ltd.  
321-Investment Bank of Ireland  
323-London Multinational Bank Ltd.  
326-Kleinwort Benson Ltd.  
327-Kuhn Loeb Int.

328-Lazard Brothers & Co. Ltd.  
332-Manufacturers Hanover Ltd.  
335-Morgan Grenfell & Co. Ltd.  
336-National Westminster Bank Ltd.  
337-Nikko Securities Co. (Europe) Ltd.  
338-Kuwait International Finance Co. S.A.K.  
343-Rabobank N.V.  
348-Rothschild N. M. & Sons Ltd.  
360-J. Henry Schroder Wagg & Co. Ltd.  
362-Caisse des Dépôts et Consignations  
363-Singer & Friedlander Ltd.  
364-Sumitomo Finance International  
368-Warburg, S. G. & Co. Ltd.  
361-White Weld & Co.  
375-Bank of America  
378-Bear Stearns & Co.  
388-Brandt (Wm.) Sons & Co.  
388-Kuwait Financial Centre  
396-Daiwa Securities & Co. Ltd.  
397-Dean Witter International Inc.  
398-Dillon Read & Co. Ltd.  
401-Dominick & Dominick  
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404-Drexel Harriman Ripley  
408-European Banking Company

411-First Boston Corp.  
412-First Boston (Europe) Ltd.  
418-Merrill Lynch, Pierce, Fenner &  
Smith Inc.  
418-Goldman Sachs & Co.  
421-American Express Middle East Devt.  
425-Hayden Stone Inc.  
431-Interunion-Banque  
437-Kidder, Peabody & Co. Inc.  
438-Blyth, Eastman Dillon & Co. Inc.  
440-National Commercial Bank Saudi  
Arabia  
441-Kuhn Loeb & Co.  
445-Lazard Frères & Co.  
447-Lehman Brothers  
449-Leob Rhoades & Co.  
454-Merrill Lynch, Pierce, Fenner & Smith  
456-Morgan & Cie International  
458-Morgan Stanley & Co.  
463-Nomura Securities Co.  
479-Salomon Brothers  
480-Banque Bruxelles Lambert S.A.  
481-Postbank  
488-Smith Barney & Co.  
487-Barclays Merchant Bank Ltd.

488-Kidder, Peabody International Ltd.  
500-White Weld & Co. Inc.  
501-Yamaichi Securities  
510-Salomon Brothers International Ltd.  
511-Merrill Lynch Intl. Bank Ltd.  
516-Union De Banques Arabes et  
Françaises (UBAF)  
517-Credit Suisse-White Weld Ltd.  
519-Arab Finance Corp.  
525-Banque Arabe et Int. d'Invest  
538-Loeb, Rhoades International Ltd.  
555-Goldman Sachs & Co. Inc.  
556-Jardine Fleming International Inc.  
560-Jardine Fleming International Ltd.  
585-B.A.I.L. (M/E) Inc.  
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594-Indo-Suez & Morgan Grenfell  
(Singapore)  
599-Swiss Bank Corp. (Lux.)  
600-First Boston AG  
630-Barclays Koll & Co. N.V.  
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MARCH 1978

## Creditanstalt-Bankverein — your partner in Austria for dealing in Austrian Schilling Bonds and International Bonds of Austrian issuers

Selected Austrian Schilling Bonds of Austrian issuers	Middle Price	Average Life	Yield to average life	Current Yield	Redemption (mandatory drawings by lot)
maturity up to 5 years					
8 % Österreich 1973/B/81	100,—	1,87	8,50	8,00	15. 2.77-81 at 101,0
8 % Österreich 1973/III/B/82	100,56	2,63	8,66	7,96	20.11.74-82 at 102,0 to 102,5
8 1/2% Österreich 1974/III/B/82	100,—	2,55	8,46	8,50	22.10.75-82 at 100,0
8 1/2% Österreich 1975/S/83	101,—	2,92	8,41	8,42	5. 3.76-83 at 100,0 to 101,0
8 1/2% Innsbruck 1974/B/82	100,25	2,63	8,53	8,48	19.11.75-82 at 100,5
8 1/2% Kärnten 1975/B/81	101,—	1,93	8,56	8,42	7. 3.78-81 at 101,0 to 101,5
8 1/2% NEWAG 1975/B/82	101,—	2,18	8,61	8,42	6. 6.78-82 at 101,5
maturity over 5 years					
8 1/2% Österreich 1975/S/III/85	102,25	4,65	8,51	8,31	27.11.79-85 at 103,0 to 103,5
8 1/2% Österreich 1976/S/86	101,50	5,38	8,57	8,37	20. 2.81-86 at 101,5 to 104,0
8 1/2% Wien 1974/B/84	99,75	3,25	8,57	8,52	2. 7.75-84 at 100,0
8 % CA-BV 1977/B/85	98,50	5,50	8,35	8,12	1. 4.82-85 at 100,0
8 1/2% Energie 1975/III/B + S/85	102,25	4,57	8,53	8,31	29.10.79-85 at 103,5
8 1/2% Semperit 1975/B/84	101,25	3,21	8,48	8,40	18. 6.76-84 at 101,0 to 103,0
8 1/2% Steyr-Daimler-Puch 1976/B/86	102,25	5,43	8,52	8,31	9. 3.81-86 at 103,0 to 104,0
8 1/2% VÖEST-Alpine 1975/B/84	101,—	3,45	8,69	8,42	16. 9.77-84 at 102,0 to 103,0

Selected US-\$ Bonds of Austrian issuers

5 3/4% Voest 63/78	6 % Rep. of Austria 64/84
5 3/4% Alpine Montan 65/85	6 3/4% Rep. of Austria 67/82
6 5/8% Austrian Electricity 66/86	8 3/4% Rep. of Austria 76/90
6 3/4% Austrian Electricity 67/82	8 1/4% Tauernautobahn 77/87
9 1/2% Österreichische Kontrollbank 74/79 in Austrian Schilling (traded in US-\$ only)	

Interest is payable without deduction for or on account of Austrian taxes.  
For current prices and further information please contact:  
For Austrian Schilling Bonds: Robert Jekl, Robert Wasinger  
(Telephone: 6622/1701 or 1707, Telex 74261-63)  
For International Bonds: Walter Vogl (Telephone: 6622/2222, Telex 76948)  
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ED STATES

Financial Times Monday April 10 1978

THE GASCADDEN BY-ELECTION

SNP gets chance to show its teeth

THE 50,000 voters of the Gascadden constituency on the north-western boundary of Glasgow will bear a heavier responsibility than merely choosing their MP on Thursday. By some freak of fate, Scotland has missed its statistical share of by-elections since 1974, so the contest will be the first real test of political opinion. The question in the ballot paper is not "Which party do you vote for?" but rather "Have the Scottish Nationalists passed their peak or are they still on the path that will make them Britain's third largest party at the next General Election?"

The Scottish National Party candidate, Mr. Keith Bovey, 50, missed 7,800 votes behind the late Mr. William Small, who held the seat for Labour last time. He needs a swing of 10 per cent. to take the seat; and it is a measure of the current state of Scottish politics and the record of success that the SNP has won itself in the last ten years that not only is that figure highly possible but Mr. Bovey's boast that he will win with a 5,000 majority is not entirely in the realms of fantasy. It would be an unlikely result, but not an impossible one.

Since 1974 when the Nationalists increased their parliamentary representation from two to 11, their party has been concentrating more and more on the industrial west of Scotland, made most of its first advances at the expense of the Tories in the east, but leading members soon realised that easy victories would not be enough. Even if it were to take every Conservative seat in Scotland, the SNP could not reach the magical 38 MPs; the majority of Scottish seats and a number it needs before it believes it has a mandate to negotiate for independence. It has used the last four years to build up its strength in the west, where Labour still reigns supreme.

So it is in the west that the big clash will come at the General Election. A simple swing from Labour to the SNP of merely 5 per cent. would double the number of Nationalists at Westminster. A swing of 10 per cent. would not only capture Gascadden, another 23 seats are also likely to fall.

In fact Scotland now faces not one, but two, by-elections; a second poll is pending in the steel-making town of Hamilton, Lanarkshire, following the death of the Labour MP, Mr. Alec Wilson last month.

Labour will not start to think about the fight there until Gascadden is over and done, but the Nationalists already have their candidate, Mrs. Margo MacDonald, senior vice-chairman of the party, a seasoned campaigner and a very popular personality. With a majority of only 3,300 standing in her way and the identification of Hamilton as the seat that started the Nationalist revival with the 1987 by-election, it is likely that Mrs. MacDonald will repeat the pattern of 1979 when she won a by-election at Govan, and be returned to Westminster within months of a General Election.

But back to Gascadden. The constituency is typical of many in the West of Scotland in its make-up and its politics. Like many parliamentary divisions, the name only exists during election campaigns. At other times the individual housing estates have separate identities and, although 90 per cent. of the homes are council-owned, they have distinct characters. The older houses of Knightswood and Blairdrie—many pre-war, but freshly painted—are roomy and comfortable. Bay windows and mature gardens give the district a pleasant appeal. There is little evidence of vandalism here and it is no surprise that the areas are classed as "high amenity" in council jargon and much sought after in housing exchanges within the city.

There is no such competition for Drumchapel or York, newer estates that reflect the squeeze on public spending of the late 1960s and 1970s. Drab rows of mean terrace houses and high-rise blocks are only brightened by spray-painted graffiti; many families refuse accommodation, despite the long waiting list in Glasgow, and the city council resorts to placing those who have no choice in other areas. Single parent families are common and their plight is often acute. There are few vacant jobs locally, particularly for women with children to collect from school, and bus fares for the seven or eight miles to the city centre are expensive.

Although Labour held Gascadden in 1974, the rise of the SNP between the two elections meteoric, displacing the Conservatives from second place and taking nearly 5,000 additional votes in the meantime. The collapse of Tory support mirrored what was happening all over Glasgow. Since then the SNP Constituency Party has been constantly active, weaning life-long Labour supporters and their children away from the traditional loyalty. The first fruits of this effort came in the May district council elections last year when all six seats in the area passed from Labour to the SNP, its finest victory in Glasgow.

It was from this base that Mr. Bovey began his campaign for the SNP only days after the death in January of the sitting MP. On polling day this week he will have completed two-and-a-half months of ceaseless effort—a campaign three times the length of those mounted by his Labour and Conservative opponents and one which, although it demonstrated his enthusiasm and stamina, inevitably peaked too early and is now on the decline.

Initially Mr. Bovey was helped by the choice of Mr. Donald Dewar, 40, and like his opponent a Glasgow lawyer, as the Labour candidate. A former MP and member of the Scottish Executive, Mr. Dewar made a courageous decision, which many of his colleagues in the party would have ducked, and based his campaign squarely on a defence of the Government's economic record. He identified himself strongly in his speeches and on the doorstep with Mr. Callaghan's determination over prices and won respect for it.

become an issue and looks like being one which Labour can exploit effectively by playing on the fears of a break-up of Britain while understanding the desire for change and offering devolution as a comfortable, safe half-way house.

The Labour campaign reaches which Mr. Iain Lawson, a 25-year-old office manager, has fought his campaign for the Tories has surprised some in his own party who assumed that the official strategy would be to make only a token attempt and allow the others to inflict the maximum damage on each other.

However, that philosophy is not one which appeals to Mr. Lawson, nor his mentor, Mr. Teddy Taylor, MP for Cathcart and Shadow spokesman on Scotland. Pursuing his view of Toryism as a broad-based movement with policies—such as being tough on vandals and criminals and selling council houses—that should appeal naturally to the working class voters of the big cities, Mr. Taylor has orchestrated as forceful a campaign as he can, getting every Scottish Conservative MP to visit the constituency and Mrs. Thatcher to spend a morning talking to shoppers.

The effect this will have on the final vote is difficult to judge. The only independent opinion poll taken in the constituency (by Marplan for the Sun, more than a month ago) gave the Conservatives 18 per cent. support, half as much again as they received in October 1974. The SNP was placed in front with 41 per cent. and Labour close behind with 39. This suggests, and Conservative canvass returns also imply, that the party is not merely taking back some of the votes it lost to the SNP, but also taking votes from Labour.

Labour is now slightly less confident of holding the seat than it was two weeks ago. Its canvassing indicates that there are still sufficient voters undecided, or who will not declare their allegiance, to leave the result open. The left-wing candidates, Mrs. Shiona Farrell

of the breakaway Scottish Labour Party, Mr. Sammy Barr, the Communist, and Mr. Peter Porteous, of the Socialist Workers' Party, will take some votes which otherwise might have gone to Labour and there is the unknown impact of abortion as an issue in the by-election.

The Society for the Protection of the Unborn Child, an anti-abortion pressure group, has mounted a campaign exceeding in scale those of the minority parties and will even provide cash to get voters to the polls. The Catholic Church (from attendance at segregated schools it would appear that around a third of families in Gascadden is Catholic) has advised its members to think long and hard about the issue before voting and some priests have stressed the point from the pulpit.

Interpretation of by-election results has its dangers, the more so if they are, like this one, the only real indication of electoral feeling for a long period. The likelihood is that Labour will hold Gascadden, albeit by a much reduced majority, and half as much again as they received in October 1974. The SNP was placed in front with 41 per cent. and Labour close behind with 39. This suggests, and Conservative canvass returns also imply, that the party is not merely taking back some of the votes it lost to the SNP, but also taking votes from Labour.

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General Election Oct. 1974

	W. Small (Lab.)	19,737 (58.9%)
K. Bovey (SNP)	12,111 (31.2%)	
J. Corbett (Con.)	5,904 (12.9%)	
M. Kibby (Lib.)	1,915 (4.9%)	
Labour majority	7,626 (19.7%)	

Letters to the Editor

A dangerous philosophy

On Sir James Wilson, chairman, Tobacco Advisory Committee.

Sir—The article by Joe Rogaly on 4) on taxation as a tool preventive medicine does not shape deal sufficiently with the important facts and points principle when it comes to cigarette smokers. They could be called upon to pay for their pleasures. It is surely debatable whether Government, and certainly present one with its slender majority in this country, should it to direct social policy by tax or other means, and thereby make the way of life of about the electorate. A revenue is one thing, but the use of it in this individual's posed best interests is a dangerous philosophy that should be examined with great care. There can be few instances where part of society will voluntarily say that it wants to be taxed from their own pockets and others who already contribute equivalent (£2.5bn. per annum) of about half current security costs, have made clear by their behaviour that they do not want this form of setting. Similarly, a supplementary tax "higher tar" cigarettes would be unjustified and unnecessary because the industry in agreement with health Ministers, is already taking effective steps to reduce the yield of these brands, and deliberately chosen not to be more attractive by reductions, which, in purely financial terms, would have no into account are the effects of the cost of living of increases indirect taxation, and the fact the main impact of further indirect taxation would fall on lower paid smokers; this class generally preferred smaller cigarettes which have already eased in price by more than 10 per cent. during the past two years.

Health is a consideration, but to achieve social ends is the answer in a free society. As Wilson, House, Place, S.W.1.

Productivity and wealth

Mr. J. Lincoln

Recent discussion of the inhibiting effects on the rise of your country's high personal income tax rates is a reduction in those is the appropriate response. might be sounder to consider a reduction in the upper ket rates on income with the of a progressive tax system, such as the excess ay, £100,000. Obviously, the of tax on net worth would be much lower than those income.

essential difference between a tax on income and a net h tax is that the former is more difficult for the wealthy to become wealthy working; while the latter is more difficult for the wealthy to remain wealthy without continuing to be productive.

the trade-off approach way to the pressure, however it include both tax and non-taxes. For example, wage and restraint by the work-classes could be traded for changes, such as the net h tax, that would further the opportunity for individuals to enjoy living standards of proportion to their con-

tribution to the national well-being.

J. E. Lincoln, 114, Mowbray Avenue, Mowbray, New Jersey, U.S.A.

Paternalistic collectivism

From Mr. A. Gray

Sir—The proposals by the Wilson (April 3) each have their own merit in "creating employment," but would it not be in our longer term interests to stimulate self employment by means of tax allowances? For instance, why not allow sole traders to earn the first £5,000 of gross profit free of tax (with costs not including any personal remuneration) and thereafter charge the profits at the same rate as corporation tax? Alternatively, effectively, a 50 per cent. equal status sole traders would be treated in a like manner.

Persons accepting this method of taxation would not then be eligible to use state health, educational or pension services without due payment. Their own personal assets, however, in respect of health insurance and charges, school fees and pension would directly increase their band of tax free income—so that £1,000 p.a. paid in sundry fees would raise their tax threshold to £5,000.

Surely it is now time to exchange our paternalistic collectivism for a good dose of dignified liberalism?

Adrian Gray, 31, Russell Road, Wimbledon, S.W.19.

Planning and land

From Mr. D. Morris

Sir—Reports of a shortage of houses for sale increase, and prices are rising. Efforts to reduce the amounts of mortgage loans will probably dampen prices in due course but it will equally disguise the reality of a shortage of houses for sale.

There is a strong demand for new homes almost everywhere, there are builders' under-employed and labour unemployed. There are plenty of materials and sufficient money for mortgages on new homes. What is missing is the land.

The supply of land is controlled by the planners who have kept the market short for many years, thus pushing up the value of land artificially. High land prices have brought in the demand for taxation of development gains which in turn has created the present hyper inflation. If planning is to avoid creating a housing shortage then planners should be obliged to zone land for residential development well in advance of the market requirements, thus keeping prices down and special taxation, such as the order together with positive planning four or five years in advance of demand

would gradually reduce land prices and in due course, house prices.

It has long been said that the British people are bused beyond their means. Negative planning has created the shortage of land which has pushed up house prices beyond our means and this in turn has necessitated the special tax arrangements for building societies, borrowers and lenders. The artificial shortage of land has also meant that unnecessarily high prices for houses have involved purchasers in far higher repayments than necessary, thereby reducing their spending power in other sectors. The deficit on demand and investment throughout the economy has been serious for a long time, but is now more serious than ever.

The Chancellor may have little elbow room to reduce other tax charges but reducing or cancelling the DLT would produce a loss to the Exchequer and substantial benefits to the country.

David Morris, Alsop and Co., 21 Soho Square, London, W.1.

The value of a good librarian

From the Business Manager, Sheffield Library Consortium.

Sir—We are interested to read the article "Library services" on April 5.

Computerised information searches are indeed very powerful tools, and businessmen can expect to come into contact with them more often as hardware becomes cheaper and the data base becomes more comprehensive.

I regret, however, that the article did not mention that most business information problems arise in the general areas of internal information storage and flow. For example, general circulation is very often a problem. The retrieval of all internal reports may be very difficult, items may be bought and lost, sometimes more than once. Material which would have been of interest may be overlooked, and so forth.

Efficient information management needs the skill of a chartered librarian who both attends to problems of internal information and puts managers into contact with appropriate outside forces, which will include a computer data base.

K. R. Johnson, 56, Mountfield Gardens, Newcastle-upon-Tyne.

Education service

From the vice-chairman, Kent County Council Education Committee.

Sir—Mr. Roland Freeman (April 5) asked me to provide a list of significant decisions where the Education Committee "successfully defied" Government policy during, say, the past year. This is of course to distort the issue completely. Defiance would imply that the Government has the power to give an order and except in very circumscribed areas, of policy it has no such power.

The plain fact is that local education authorities can at present discuss and decide policy in a very wide range of areas without reference to central Government. Indeed, in many fields we were ahead (in Kent) of the Government, perhaps because of his recently shifted ground. For example, we have drawn up a basic document on aims and objectives in primary schools; we have carried out our own research into assessment of standards in English and mathe-

matics; and we have developed our relations with commerce and industry.

Other examples of policy matters which we have ourselves recently dealt with are: a massive switch of resources away from school meals to areas of purely educational expenditure; a substantial increase in the amount of residential and other accommodation available for courses for state school children; a feasibility study of the voucher scheme; a complete survey of our further education provision including the introduction of a number of important developments in our adult education sector. The extent to which a considerable extent we have implemented large sections of the Russell Report while the Government has been prevaricating about taking a decision.

Matters of this kind affect the education service in this county basically and I must emphasise that these are only recent and current developments. If I were to go back over the years of my experience as a county councillor, the list would be far too long to be contained reasonably in your column.

I can only repeat that anyone who believes that education authorities would have anything approaching this degree of freedom if we relied on 100 per cent. funding from the central Government is, I think, simply not in touch with the realities of political life.

Alice Waters (Mrs.), Springfield, Maidstone, Kent.

Liability and products

From Mr. A. Benson

Sir—Your insurance correspondent (April 3) has used a phrase which goes to the heart of the Pearson Commission and the EEC draft product liability directive. He writes "In deciding how to give the products injury victim greater certainty of compensation and thus demonstrate the fundamental social compensatory thrust of the documents."

The proposed method of achieving this perfectly desirable end is to amend the law so as to impose a new financial burden on the producer regardless of whether or not he has been in any way negligent in the manufacture of his product. The cost of this burden, whether the risk is absorbed by or insured by the producer, will be a component of the product price, and will undoubtedly ultimately be met by the consumer.

Bearing in mind that Pearson recommends no financial limit of liability in this context it seems probable that the majority of prudent producers will elect to protect themselves against this new liability by insurance. Taking into account the overheads and profits to be earned on this business both by insurers and brokers, and considering the extent to which the available premium fund will thus be depleted, it seems surprising that Pearson has not recommended an extension of the existing social security system for the provision of compensation in product-related injury cases. This could be financed at relatively less cost by per capita levy via the state; legal and other overheads would be substantially reduced and profit would not be derived from the exercise.

Is it too late for this point to be re-considered to the possible economic advantage of consumers in general?

A. P. Benson, "Jennetts," 28 Longdene Road, Haslemere, Surrey

GENERAL

European Central Bankers begin two-day meeting in Basle.

First preliminary hearing of Crown Agents Tribunal of Inquiry, Lands Tribunal, Chancery Lane, W.C.2, 10.30 a.m.

Mr. Nobuhiko Ushiba, Japan's External Affairs Minister, to attend Ministerial meeting of the General Agreement on Tariffs and Trade, Geneva.

Canadian Budget.

Dr. David Owen, Foreign Secretary, at Gascadden by-election meeting, Knightswood Primary School, Glasgow.

Dr. Kurt Waldheim, Secretary General, United Nations, begins visit to Irish Republic.

Nominations close for Lambeth E.C.4.

To-day's Events

Central by-election.

British Rail cuts buffet prices.

European Parliament session opens, Luxembourg.

Two-day Financial Times conference on Business and the European Community Directives opens, Grosvenor House, W.1.

Sir Keith Joseph, MP, and Mr. Norman St John-Stevas, MP, address Federation of Conservative Students Conference, Loughborough University.

London Chamber of Commerce and Industry seminar—The New Patent Act 1977, 66, Cannon Street, E.C.4.

Mr. Albert Booth, Employment Secretary, at Lambeth Central Labour Party meeting, 57-59, Old Town, Clapham.

Announcement by Mr. Chris Bonington on British F3 Expedition, Pakistan Embassy.

Extradition proceedings begin in Brighton against Mr. John Gail, a businessman living aboard a yacht at Malta.

Sir Peter Vaneek, Lord Mayor of London, attends luncheon with chairman and Board members of Port of London Authority at World Trade Centre, E.1, 1.15 p.m.

PARLIAMENTARY BUSINESS

House of Commons: (National Enterprise Board (Financial Limit) Order and motion on Financial Assistance to British Leyland. Motion on EEC Documents on Farm Structure.

House of Lords: Debate on collective bargaining.

OFFICIAL STATISTICS

Wholesale price index (March prov.).

COMPANY RESULTS

Associated Biscuit Manufacturers (full year), Glaxo Holdings (half-year).

COMPANY MEETINGS

See Week's Financial Diary on Page 13.

Midland in Japan.

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The following Tombstone announcements were published in the Financial Times during March

## BONDS

Tombstone date	Publication date	Tombstone date	Publication date	Tombstone date	Publication date
1/3/78	1/3/78	9/3/78	9/3/78	16/3/78	20/3/78
FUJITSU LIMITED		CITICORP OVERSEAS		NORGES KOMMUNALBANK	
DM 50,000,000		FINANCE CORPORATION N.V.		Dfls100,000,000	
4 1/2% DM Convertible Bonds 1988		€30,000,000		7 1/2% Bearer Bonds due 1984/1993	
Deutsche Bank and others		10% £/US\$ option Guaranteed Bonds due 1993		AMRO Bank N.V. and others	
		S. G. Warburg & Co. Ltd. and others		KINGDOM OF NORWAY	
2/3/78	2/3/78	10/3/78	10/3/78	20/3/78	
FINANCING		REPUBLIC OF PANAMA		US\$125,000,000	
MAATSCHAPPIJ		US\$30,000,000		8 1/2% Notes 1983	
D'ORANJEBOOM B.V.		9 1/2% Notes 1983		Hambros Bank Limited and others	
€15,000,000		Merrill Lynch International			
10 1/2% Guaranteed Sterling		(Asia) & Co. and others			
Foreign Currency Bonds 1990					
Samuel Montagu & Co. Limited		15/3/78	15/3/78		
and others		REPUBLIC OF			
		VENEZUELA			
2/3/78	2/3/78	DM 250,000,000			
FINANCE FOR		6% Bonds due 1988			
INDUSTRY LTD.		Westdeutsche Landesbank			
€12,000,000		Girozentrale and others			
10 1/2% US\$ payable Bonds 1989					
S. G. Warburg & Co. Ltd. and others		Mar. 78	15/3/78		
		KVARNER			
Feb. 78	2/3/78	INDUSTRIER A/S			
EUROPEAN COAL AND		DM 20,000,000			
STEEL COMMUNITY ("ECSC")		5 1/2% Bearer Bonds 1988			
US\$20,000,000		Dresdner Bank AG			
8 1/2% Notes due 1990		Den norske Creditbank			
Societe Generale de Banque S.A.		KINGDOM OF DENMARK			
and others		DM 100,000,000			
24/2/78	3/3/78	7 1/2% Bonds due 1984/1993			
COMMONWEALTH OF		Algemeene Bank Nederland N.V.			
AUSTRALIA		and others			
Y50,000,000,000		16/3/78	16/3/78		
6 1/2% Jap. Yen Bonds due 1990		COMISION FEDERAL			
The Nomura Securities Co. Ltd.		DE ELECTRICIDAD			
and others		DM 150,000,000			
Mar. 78	7/3/78	DM 150,000,000			
SEARS INTERNATIONAL		6 1/2% Bonds due 1988			
FINANCE NV		Westdeutsche Landesbank			
€15,000,000		Girozentrale and others			
10 1/2% Sterling Foreign currency					
Bonds 1988		16/3/78	16/3/78		
Hambros Bank Limited and others		NISSIN STEEL CO. LTD.			
HITACHI ZOSSEN		DM 50,000,000			
US\$30,000,000		4 1/2% Convertible Bonds due 1988			
8 1/2% Guaranteed Notes due 1983		Nomura Euroco N.V. and others			
The Sanwa Bank Limited and others		16/3/78	16/3/78		
		TRINIDAD AND TOBAGO			
5/3/78	5/3/78	DM 75,000,000			
EUROPEAN		6% DM Bonds due 1983			
INVESTMENT BANK		Deutsche Bank AG and others			
DM 250,000,000		27/2/78	17/3/78		
9 1/2% DM Bearer Bonds 1978/1990		CITY OF OSLO			
Deutsche Bank and others		€15,000,000,000			
		6 1/2% Y Bonds First series due 1990			
		The Nikko Securities Co. Limited			
		and others			

## LOANS

Tombstone date	Publication date	Tombstone date	Publication date	Tombstone date	Publication date
Jan. 78	1/3/78	Dec. 77	9/3/78	14/3/78	21/3/78
LOCKHEED CORPORATION		PAKISTAN		INDUSTRIAL CREDIT	
US\$80,000,000		INTERNATIONAL AIRLINES		BANK	
Syndicated Bonding Facility		CORPORATION		US\$300,000,000	
Kreditbank S.A. Luxembourgise		US\$15,000,000		Medium term credit facility	
and others		Medium term loan		Chase Manhattan Limited	
27/2/78	1/3/78	and others		CONTINENTAL DE	
COLGATE-PALMOLIVE		Dec. 1977	9/3/78	CREDITO MERCANTILES C.A.	
GENERAL CORPORATION		PRIVREDNA BANKA		\$10,000,000	
\$150,000,000		SARAJEVO		Medium term loan	
Promissory Notes due 1988		US\$50,000,000		Dillon, Read Overseas Corporation	
Negotiated by Dillon, Read & Co. Inc.		Medium term loan		and others	
IRAN POWER		Bank of Montreal and others		Feb. 1978	21/3/78
GENERATION & TRANSMISSION		COPENHAGEN PETROQUIMICA		MARATHON OIL COMPANY	
TVANIR CO.		DU NORDETS S.A.		US\$450,000,000	
US\$87,312,000		Medium term credit facility		Convertible revolving credit facility	
Project finance		Libra Bank Limited and others		Chase Manhattan Bank N.A.	
Morgan Grenfell & Co. Limited		NOL (UK) HOLDINGS		and others	
and others		10/3/78	10/3/78	Feb. 1978	21/3/78
Dec. 77	2/3/78	JOY MANUFACTURING		MARATHON OIL COMPANY	
COMPANY PTY. LIMITED		US\$8,000,000		US\$200,000,000	
Fixed rate loan 1988		Medium term loan		Eurodollar convertible revolving	
Bankers Trust Int. Limited		First International Bancshares		credit facility	
Orinco-B.T. Co. Limited		and others		Chase Manhattan Limited and others	
THE REPUBLIC OF		10/3/78	10/3/78	Dec. 1977	31/3/78
COSTA RICA		GULF OIL CORPORATION		SUPERINTENDENCIA	
US\$28,000,000		US\$70,000,000		NACIONAL DA MARINHA	
Medium term loan		Commercial Bank AG—London Branch		MERCANTE	
Continental Illinois Ltd.		and others		\$180,000,000	
and others		Jan. 1978	14/3/78	Medium term Eurodollar loan	
Nov. 77	3/3/78	BANCO CENTRAL DE		Morgan Guaranty Trust Co. of	
AGIP REFINERIES CONGO		CHILE		New York and others	
(FRAZAVILLE) S.A.		US\$125,000,000		Mar. 1978	22/3/78
US\$25,000,000		Medium term finance		PRIVREDNA BANKA	
Medium term loan 1984		Wells Fargo Bank N.A. and others		ZAGREB	
Banco de la Societe Financiere		CANAL DE ISABEL II		US\$363,000,000	
Eurofene and others		US\$30,000,000		Project related financing	
DALMINE S.P.A.		Medium term loan		Bank America International Group	
US\$38,000,000		Dillon, Read Overseas Corp.		and others	
Medium term loan		Lloyds Bank Int. Ltd. and others		BEOGRADSKA BANKA	
Credito Italiano—London		REPUBLIC OF PANAMA		US\$17,500,000	
and others		US\$170,000,000		Medium term loan	
PRIVREDNA BANKA		First Chicago Panama S.A. and others		Grindlays Brandts Limited	
ZAGREB		15/3/78	15/3/78	and others	
US\$14,200,000 Medium term loan		REPUBLIC OF		Dec. 1977	33/3/78
US\$14,275,000 Buyer credit		VENEZUELA		SOUFIAN CEMENT	
Lloyds Bank International Limited		DM 500,000,000		COMPANY IRAN	
EMPRESA DE POLIMEROS		Long term loan		US\$11,000,000	
DE SINES S.A.R.L.		Westdeutsche Landesbank		Medium term loan	
US\$12,000,000		Girozentrale and others		Merrill Lynch International Bank	
Medium term loan		17/2/78	16/3/78	Limited and others	
Banque de l'Indochine et de Suez		EUROVIAS		Jan. 1978	23/3/78
and others		CONCESSIONARIA ESPANOLA DE		ADELA INTERNATIONAL	
Jan. 78	6/3/78	AUTOPISTAS, S.A.		FINANCING COMPANY S.A.	
HYDRO-POWER		US\$5,000,000		US\$25,000,000	
US\$60,000,000 Medium term loan		Medium term multicurrency loan		5 1/2% floating rate loan	
US\$60,000,000 Standby line of Credit		Dillon, Read Overseas Corp.		€6 Luxembourg and others	
Bank of Montreal and others		and others		JUGOSLOVENSKI	
Jan. 78	6/3/78	NEW ZEALAND WOOL		AEROTRANSPORT	
ENTREPRISE NATIONALE		MARKETING CORPORATION		US\$34,000,000	
SONATRACH		US\$80,000,000		Medium term loan	
Jap. ¥12,500,000,000		Medium term revolving credit		Chemical Bank United California	
7 year loan		facility		Bank and others	
Long term Credit Bank of		J. Henry Schroder Wagg & Co. Ltd.		Mar. 1978	29/3/78
Japan Ltd. and others		and others		DAEWOO-TRIAD	
Mar. 78	7/3/78	Mar. 1978	17/3/78	DEVELOPMENT CO. LTD.	
LEWIS CONSTRUCTION		BENEFICIAL		US\$30,000,000	
CO. PTY. LTD. &		CORPORATION		Medium term loan	
THE STATE ELECTRICITY		DM 30,000,000		Goldman Sachs International	
COMMISSION OF VICTORIA		Medium term loan		Corp and others	
US\$37,000,000		Westdeutsche Landesbank		BANK FOR FOREIGN	
Project facility		Girozentrale		TRADE OF THE USSR	
Hambros Bank Limited and others		17/3/78	17/3/78	US\$400,000,000	
Jan. 78	7/3/78	AUTOPISTAS, S.A.		Seven Year Loan	
THE REPUBLIC OF		CONCESSIONARIA ESPANOLA, S.A.		Compagnie Financiere de la Deutsche	
INDONESIA		DM 20,000,000		Bank AG	
\$575,000,000		Medium term loan		Lloyds Bank International Ltd and	
Medium term Euro-dollar loan		and others		others	
Morgan Guaranty Trust Co. of		Feb. 1978	17/3/78	Mar. 1978	30/3/78
New York		THE KINGDOM OF		CESKOSLOVENSKA	
The Bank of Tokyo Ltd. and others		SWEDEN		OBCEJNY BANKA A.S.	
STATE OF SAO PAULO		DM 200,000,000		US\$180,000,000	
€30,000,000		10 year fixed-rate loan 1978/88		Medium term loan	
Medium term loan		Algemeene Bank Nederland N.V.		Creditanstalt-Bankverein and others	
Raven in Estado de Sao Paulo S.A.		CORPORACION NACIONAL		Mar. 1978	30/3/78
and others		DEL COBRE DE CHILE		COMPAGNIE NATIONALE	
Feb. 78	8/3/78	US\$10,000,000		ALGERIENNE DE NAVIGATION	
PRIFETURA DO		Medium term loan		Y15,000,000,000	
MUNICIPIO DE SAO PAULO		Chemical Bank and others		Medium term loan	
US\$30,000,000		24/2/78	21/3/78	The Yasuda Trust and Banking	
Medium term loan		HIDROELECTRICA		Company Ltd and others	
Merrill Lynch International		ESPAOLA S.A.		Feb. 1978	30/3/78
Bank Ltd. and others		US\$60,000,000		AGUA Y ENERGIA	
TRIOCEAN CARRIERS INC.		Medium term loan		ELECTRICA	
US\$16,000,000		Citicorp International Group		US\$30,000,000	
Medium term ship mortgage loan		and others		Interunion-Banque	
First International Bancshares				and others	
Limited and others				JORDANIAN SYRIAN	
ENTREPRISE NATIONALE				LAND TRANSPORT CO.	
SONATRACH				US\$12,000,000	
US\$10,000,000				Medium term loan	
Medium term loan				Frab Bank Int. UBAF and others	
First International Bancshares					
Limited and others					

## OTHERS

Tombstone date	Publication date	Tombstone date	Publication date	Tombstone date	Publication date
23/1/78	1/3/78	8/3/78	10/3/78		
GENERAL ELECTRIC		MORTON-NORWICH			
CREDIT CORPORATION		PRODUCTS, INC.			
\$86,610,000		private placement of 800,000			
Leveraged Lease Financing		shares of common stock with			
Morgan Stanley & Co.		Rhone-Poulenc S.A.			
6/3/78	9/3/78	Financially advised by			
THE DOW CHEMICAL		Salomon Brothers and			
COMPANY		Banque Paribas Pour l'Industrie			
\$300,000,000		et le Commerce			
8.625% Debentures due 2008		3/3/78	10/3/78		
Smith Barney, Harris Upham & Co.		RHONE-POULENC S.A.			
and others		has acquired 1,625,700 shares			
		of common stock of			

## APPOINTMENTS

### Two joint chief executives for St. Martins Property

Mr. John S. Stringer and Mr. Brian L. Cann are to become joint chief executives of ST. MARTINS PROPERTY CORPORATION from June 1. Mr. Tom Grimley retires as managing director of the company and its subsidiaries at the end of May but will remain a consultant until June 30.

Following the acquisition of Pontin's by Coral, Sir Fred Pontin, Mr. R. G. Whitehead, Mr. P. E. Hopper and Mr. T. J. Hemmings have been appointed to the Board of the CORAL LEISURE GROUP. Sir Fred and Mr. Whitehead have also joined the management Board of Coral. Mr. J. Michael Hoare and Mr. David Spencer respectively managing director and finance director of Coral, have been made members of the Board of Pontin.

Mr. Stanley Harding has been appointed to the Board of JAMES NEILL HOLDINGS. He is a director of H.J. Samuel & Co. and was formerly financial director of the Tilling Group and chairman of Cornhill Insurance.

The WILLIAM STEWARD GROUP has appointed the following members to the holding Board: Mr. E. R. King, managing director, Johnson Pearce and director of William Steward and Co.; Mr. E. J. Feldstead, managing director, William Steward International and a director of Johnson Pearce; and Mr. S. W.

Mr. J. Robert Hulme has been appointed chairman of KIRBY PHARMACEUTICALS and has replaced Mr. A. C. L. Samuel, who retired as managing director but remained a part-time consultant to the association. Dr. V. Kendall has been made secretary.

Mr. Richard S. Shervette, treasurer of BELoit WALMSLEY, has been appointed financial director. He succeeds Mr. A. J. Feitengell, who recently became managing director.

### HOME CONTRACTS Gas mains work worth £12.5m.

GAS MAINS work in Cambridge-shire and the West country worth £12.5m. is to be carried out by WILLIAM PRESS AND SON. For South West Gas, the company will work for two years on a mains and service laying period contract covering installation and maintenance work valued at about £12.5m. Work commences this month and could ultimately employ a labour force of 600 men working in up to 200 gangs. A two-year contract for Eastern Gas is valued at £2.5m. Some 140 men will be involved.

Orders totalling 50m. have been gained by MEL (a Philips company) over the past 18 months for the supply of naval communications equipment in both home and overseas markets. Some £2m. worth is for single sidedband amplifiers developed mainly for service in submarines. Automated message processing systems, to the value of £4m., are currently being installed in all the Royal Navy's latest ship units and in British submarines. Orders totalling 50m. have been gained by MEL's continuing expansion in the naval communications business in both home and overseas markets.

MEL's well-known SSA (Single Sidedband Amplifier) equipments, developed mainly for service in submarines, have been the subject of re-orders to the value of some £2m. Many of these systems, although ordered by the Ministry of Defence (Navy), are in fact destined for eventual export.

Over the past eighteen months, contracts for 54m. worth of ANPS (Automated Message Processing Systems) have also been awarded to MEL. These digital systems are currently being installed as part of the overall ICS 3 communications systems in all the Royal Navy's latest ship units and in many of the frigates undergoing modernisation. Further orders are imminent for the second command cruiser, and for further Type 23 frigates requirements.

In conjunction with the Message Processing Systems, further orders have been received for the high speed mosaic head printers currently being installed in various ships. Meanwhile, the Royal Netherlands Navy has purchased the latest models, with such features as in-band diversity and full wide/narrow band shifts, for service with the first batch of their "S" frigates.

For the future, MEL expects substantial home and export orders in the naval area, especially for message processing systems, and looks forward to further healthy growth in this field.

LOWRY ROBERTSON (a Davy International company), is providing complete new steel strip picking facilities at the British Steel Corporation's Port Talbot Works, South Wales. The contract, worth over £2m., is scheduled to take four years and involves construction of two advanced hydrochloric acid pickling lines to replace those dating from the 1930's. Installation is being carried out without interruption of pickle line production. The first stage has been completed and stage two is in progress.

As part of a £32m. container handling expansion programme at the Port of Felixstowe, a 509m. order has been placed with

### SUOMEN VIENTILUOTTO OY—FINLANDS EXPORTKREDIT AB. (Finnish Export Credit Ltd.)

8% Guaranteed Notes Due 1982.

We wish to advise that Morgan Guaranty Trust Company of New York, Avenue Des Arts 35, 1040 Bruxelles has been appointed as a sub paying agent.

Payment of each amount of principal of, or interest due on the notes will be made on the due date (15th April annually), for payment thereof or if such date is not a business day, on the next succeeding business day.

Fiscal Agent Merrill Lynch International Bank Limited London

### OTTOMAN BANK

NOTICE IS HEREBY GIVEN that, in accordance with Article 29 of the Statutes, the ANNUAL GENERAL MEETING of Shareholders will be held on WEDNESDAY, the 10th May 1978, in THE GREAT EASTERN HOTEL (ESSEX ROOM) LIVERPOOL STREET, LONDON E.C.2 at 12.30 p.m. to receive a Report from the Committee with 1/4 Accounts for the year ended 31st December 1977 to propose a Dividend; and to elect Members of the Committee.

By Article 27 of the Statutes the General Meeting is composed of holders, whether in person or proxy or both together, of at least thirty shares who, to be entitled to take part in the Meeting must deposit their shares and, as may be necessary their proxies, at the Head Office of the Company in Istanbul or at any of the various branches offices abroad (in London at 23 Fenchurch Street EC3P 3ED; and in Paris at 7 rue Meyerbeer, 75001 at least ten days before the date fixed for the Meeting.

The Report of the Committee and the Account which will be presented to the General Meeting is available to the Shareholders at the Head Office Istanbul and at the offices in London and Paris.

R. A. SUTCH Secretary to the Committee

10th April 1978

### ANGLO-AMERICAN SECURITIES CORPORATION LIMITED

#### Summary of results

Year ended 15th January	Gross Revenue	Ordinary Share Dividend Paid per Share (net)	Gross Assets (less Current Liabilities)	Net Asset Value
1968	£1,713,944	1.25p	£32,759,540	\$4p
1977	£3,393,966	2.64p	£79,445,518	11½p
1978	£3,601,342	3.00p	£78,149,852	11½p



## FINANCIAL TIMES REPORT

Monday April 10 1978

## Thistle Field

The two unique features of the Thistle Field are the depth of water in which it is situated, and the fact that it is the first field on which the British National Oil Corporation has acted as operator—and it also indicates the likely line for development on similar finds.

THE BEGINNING of commercial production from the Thistle field marks a significant step in the development of the U.K. oil province. In physical terms, it has helped to extend offshore technology, for production equipment has had to be located at the deepest water so far encountered by field developers in the North Sea.

The Thistle consortium comprises one of the most widely diversified collections of companies, encompassing German and British state interests, one of the oil industry "seven sisters," a group which might be regarded as "mini-majors" and smaller independent undertakings. And Thistle marks the start of commercial development of the British National Oil Corporation, which the British National Oil Corporation has assumed the role of operatorship.

Clearly Thistle has not been an easy field to exploit. Even a commissioning process during the past couple of months has been dogged by foul weather (even worse than usual), by problems with several hundred valves caused by casting error and by last-minute hitches with development drilling.

Production from the first five wells expected to be accomplished shortly, should be some 100,000 barrels a day, according to BNOC.

The field has an estimated 500m. to 625m. barrels of reserves assuming a recovery rate of about 50 per cent. of the oil reserves in place. This in itself is noteworthy for the average recovery rate worldwide is no more than 25 to 33 per cent.

The production platform has sufficient capacity to handle a flow rate of 250,000 barrels a day although peak output is expected to be nearer 200,000 to 240,000 b/d. This peak should be reached next year and last, then on the rate of production will decline to about 40,000 b/d by about 1990. Coincidentally this is the rate of production expected to be achieved during this initial phase, although output for 1978 as a whole should average 120,000 barrels a day.

The wisdom of installing offshore loading facilities at the Thistle. Even when the pipeline is in operation the Thistle consortium might find it useful to keep the SALM as a back-up; as recent news reports have shown, pipelines are vulnerable to accidents. Both the Brent Field

with the biggest single stake in a role assumed following its own acquisition of Signal Oil and Gas. A large part of BNOC's exploration and production staff previously worked with Signal and Burmah. Indeed the transfer of this substantial unit of expertise is one reason why

the Corporation's involvement in offshore activities has been able to grow as rapidly as it has. Burmah has still retained an 8.1 per cent. stake in Thistle, however. The company is hoping that this toehold in the North Sea and the cash flow that will result from its share of reserves (over 40m. barrels) will lead to further exploration activity in the sixth and future licence rounds. Burmah is in the process of forming a consortium, in which it would be operator, to bid for new licences.

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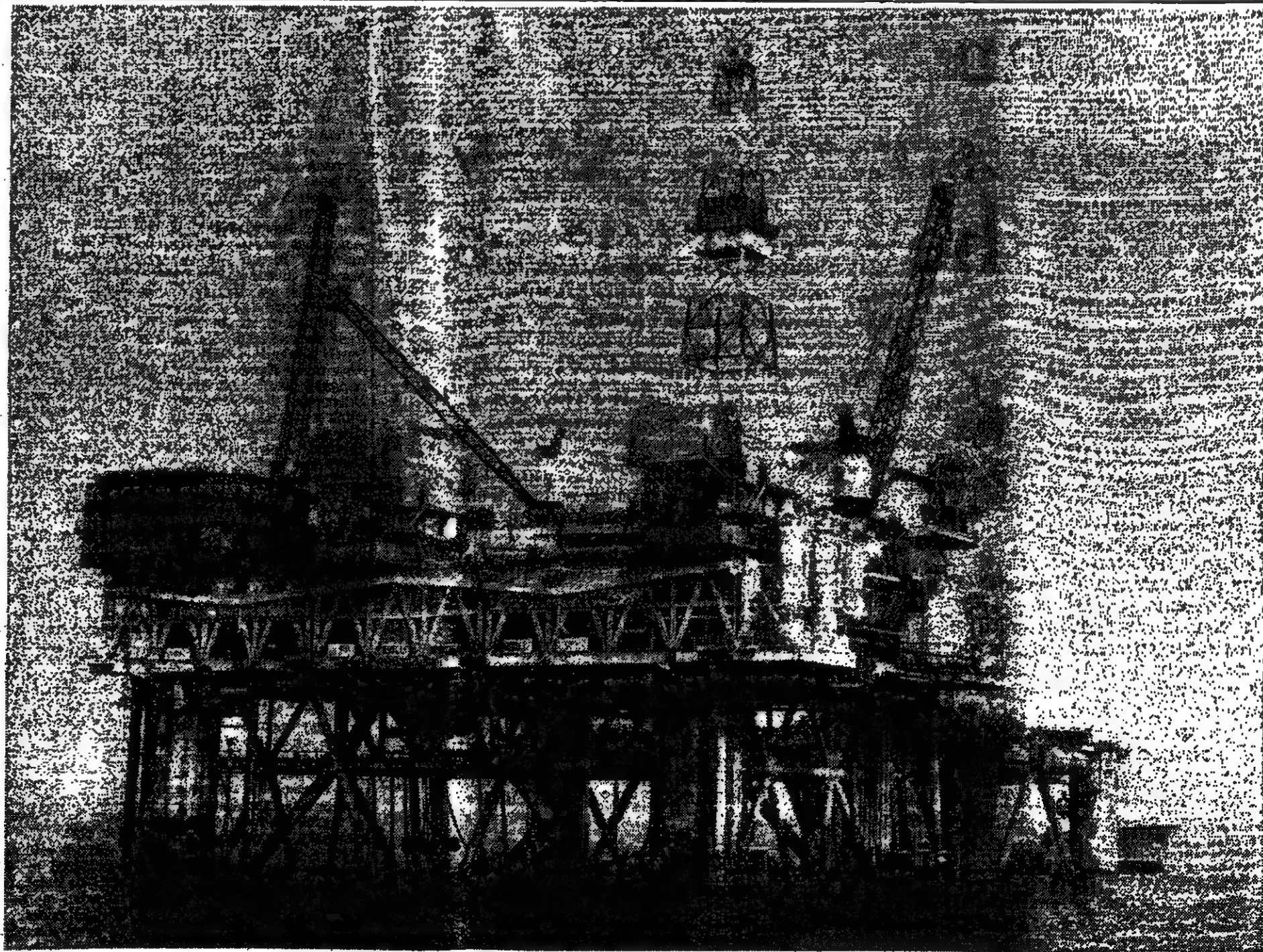
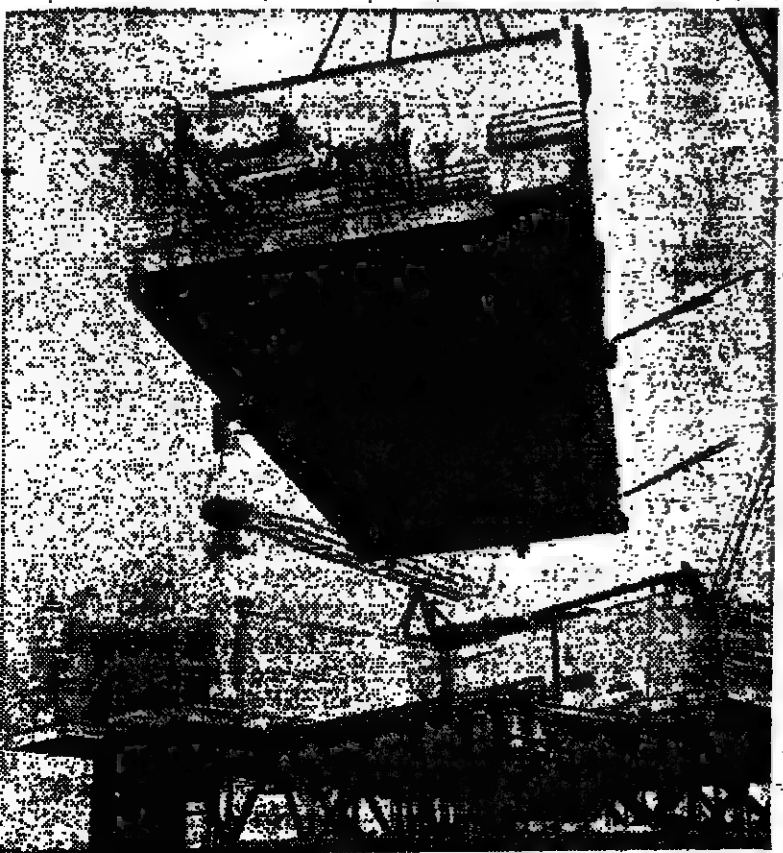
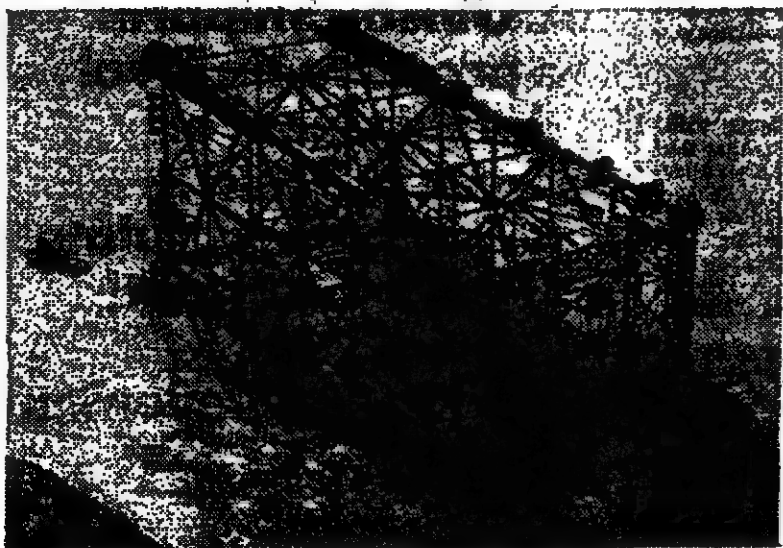
## BNOC goes in at the deep end

By Ray Dafter, Energy Correspondent

## Exploitation

Charterhouse could receive some \$70m. (at current prices) for the Thistle crude. And it might receive as much again if and when other reservoirs in block 211/18 are exploited.

Although the Thistle consortium has had to relinquish half of the block's acreage (a rectangular portion to the west of the Thistle and south of the northerly ninth well) it has of energy shortages foreseen for the end of this century.



CJB Offshore's biggest achievement to date now goes into production.

Our responsibility to BNOC (Development) Ltd., the operator of the Thistle field, was for the overall design and engineering of the total project, whilst CJB-Earl & Wright handled the structural design work.

CJB Offshore's involvement commenced with the first conceptual designs and has carried through to construction work on the platform.



CJB OFFSHORE LTD

Telephone: 01-262 8080

CJB-EARLAND WRIGHT LTD

20 Eastbourne Terrace, London, W2 6LE, England.

Telephone: 01-402 9251



Members of the John Brown Group

Photographs by Marcus Taylor courtesy of BNOC (Development) Ltd.

Thistle 'A'

Now on stream

The highly complex design requirements were more extensive than for any other North Sea platform to date.

The Thistle 'A' Production platform, the largest of its kind in the world is producing oil from beneath some of the deepest and most exposed waters in the North Sea. The maximum production of 200,000 barrels of oil per day will be transported ashore either via the offshore loading buoy direct into tankers or to Sullom Voe via the Brent pipeline system.





# DEMINEX

## DEMINEX UK EXPLORATION AND PRODUCTION LIMITED

### DEMINEX OIL AND GAS (U.K.) LIMITED

Wholly owned subsidiaries of

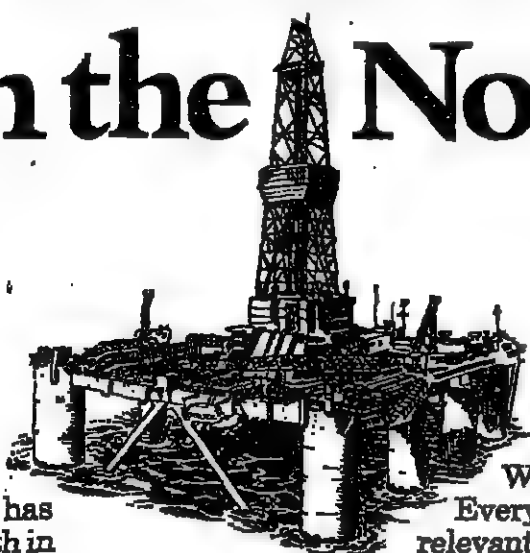
**DEMINEX-Deutsche Erdölversorgungsgesellschaft mbH**  
of Essen, Federal Republic of Germany

whose shareholders are:

**Veba AG; Union Rheinische Braunkohlen Kraftstoff AG; Wintershall AG; Saarbergwerke AG.**

are proud to be associated as the major economic interest holders, with the development of the Thistle Field and congratulate all parties involved in this magnificent achievement.

## A chance to explore the best source of news from the North Sea



In a little more than seven years the North Sea oil industry has grown enormously, both in offshore exploration and production, and in ancillary onshore developments.

It is an industry that lives with fast-moving expansion, politics and projects which stretch modern technology to its limits. Decisions involving millions of pounds arise almost every day and call for constant access to a wide range of up-to-date, accurate information.

This is what the North Sea Letter & European Offshore News (NSL) provides. Produced by the Financial Times Limited, NSL is an exclusive weekly review of oil and gas

activities on all sectors of North-West Europe's continental shelf. Every week NSL gathers all the relevant information, interprets it, sets it in perspective, and provides a continuous well-referenced record.

This is compressed into a concise dozen or more pages that are essential reading for anyone involved in this dynamic industry. All for around £2 a week. So why not try the four-month test. Complete and return the coupon below and begin a four-month subscription, now.

Exploring for accurate information is rather like exploring for oil: painstaking, expensive work. This time, we think you'll find you've struck it rich.

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The single anchor leg mooring, adapted for deepwater use by replacing the chain connection between the seabed gravity anchor base and the buoy with a flexible tubular steel swivel assembly. It retains the basic feature of the single point mooring method — namely a weather-vane type buoy which is capable of swivelling 360 degrees, allowing the tethered vessel to swing around the mooring according to prevailing seas. This reduces the danger of collision between the tanker and the buoy.

The oil is taken on board the tanker by means of an underwater hose, which is connected to the central swivel assembly below the buoy. Originally, the intention was to use one of the anchor leg hoses for cargo and a second for ballast, which would have been skimmed and cleaned before being pumped into the ocean.

Instead a decision was taken to convert Thistle's tankers to carry segregated seawater ballast, thus eliminating the need for de-ballasting operations. The advantages of this are the avoidance of down-time or delay caused by the problems of separating oil residue from clean ballast during very rough weather, a general desire to recognise increasing concern for pollution matters and the

fact that the mooring's second hose consequently became free system to be used for Thistle's transmitting oil. This gives oil: the fact that the Brent field pipeline to the Sullom Voe terminal has not been brought into use on schedule and the geographical location of the field, 130 miles from Shetland in water 530 feet deep.

The non-availability, at least for the first year of Thistle production, of the pipeline left the operators with little alternative to a deep-water single point mooring to service a shuttle of oil tankers. But in spite of the still relative novelty of the SPM system, there is now a wide range of designs, based on the experience of the 200 or so moorings in use around the world, to choose from.

Thistle's mooring is of the single anchor leg variety and has been designed by the Single Buoy Moorings subsidiary of the Dutch shipbuilder, IHC, on the basis of an Exxon patent. This company has been responsible either wholly or partly for six point moorings already in service in the North Sea, but its previous installations in the North Sea and elsewhere have chiefly been standard single buoy moorings anchored to the seabed with long catenaries of chains.

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## THISTLE FIELD II

# The consortium partners

THE COMPOSITION of the companies which have shared in the Thistle Field development has varied considerably since the field was first discovered in 1973, but following two major deals during 1975, the West German State-supported oil group, Deminex, emerged with the dominant share at 41 per cent.

Deminex only came into existence in 1969. Its formation was a result of West Germany's desire, as Western Europe's biggest consumer of oil, to ensure that its own oil companies should have control over significant reserves of crude oil. Unlike its industrial partners in Europe, Germany has no powerful oil company with reserves under its direct control. The result has been that the huge German market has had to rely on crude supplied from the resources of the international oil companies.

To try to remedy this position Deminex was founded nine years ago by a group of independent German oil companies with the simple objective of strengthening their crude oil

base through exploration, development and production overseas. A number of take-overs have since changed the composition of Deminex, with the result that 54 per cent is controlled by Veba, the huge energy, chemicals, glass and transport group, which is Germany's largest industrial concern in terms of turnover.

The other partners are Wintershall, the wholly owned subsidiary of the chemicals giant, BASF, with 18.5 per cent, Union Rheinische Braunkohlen Kraftstoff, 18.5 per cent, and Saarbergwerke, 9 per cent.

Deminex's exploration interests are far from confined to the U.K. sector of the North Sea, though its share of the Thistle Field is certainly its most important stake in crude oil reserves to date. It is also active in the offshore areas of Trinidad and Tobago, Senegal, Egypt, Ras-el-Khaimah, Greenland, and the Norwegian sector of the North Sea, along with exploration onshore in Canada, Iran and Oman.

Its chance to acquire a large share in the Thistle Field came with decisions by Champlin Petroleum of the U.S. and United Canso of Canada in 1975 to sell their North Sea interests.

Champlin's outright sale of its stake in the U.K. sector came as a surprise to the industry, but it gave Deminex a 22.5 per cent share in the Thistle Field block for an undisclosed sum that was thought to be in the region of \$60m. to \$70m.

In order to get U.K. Government approval for the purchase of these stakes in the field, Deminex — was ready to agree participation in principle by the British National Oil Corporation. It was a device that had been used before in the Thistle Field group by the Department of Energy, when it forced Burmah to accept participation as part of the rescue operation of the group. Final participation agreements were reached by Deminex with the Government in January this year, which gave BNOOC the right to buy at market price up to 51 per cent of Deminex's oil. In addition Deminex provided BNOOC with additional voting rights under the field operating agreements. Deminex did win the right to export directly to Germany some 50 per cent of its oil production, however.

### Capacity

Though its crude reserves are still small, Deminex controls its own refining capacity totalling some 46m. tons a year, about 25 per cent of the total refining capacity in West Germany. The group is the chief instrument of the Federal Government's energy supply policy and has been given up to DM1,375m. in financial support for the years 1969-1978. In a follow-up programme the state has made it clear that it is ready to provide up to another DM600m. in three years to the end of 1981.

More than DM1bn. has been allocated by Deminex towards its 41 per cent share in the development of the Thistle Field, and in the long term the company is looking to increase its reserves particularly in the North Sea and the North Atlantic.

State interests now play a dominant role in the Thistle field. The German state has its direct interest through a controlling 44 per cent of Veba, the biggest Deminex partner. But exactly how much crude it will be allowed to refine in West Germany will depend on delicate talks which have been taking place with the British state interest, BNOOC, and the Energy Department.

The first crude shipment from Thistle is going to BNOOC and is destined for a Humber-side refinery. The second will go to Deminex, but the decision is still to be announced as to whether it will be exported to West Germany. To date the Government has fallen short of its target of refining up to two-thirds of the crude from the U.K. sector in Britain.

Wherever Thistle oil is finally refined it is certain that BNOOC will have a direct say in the control of more than half of the reserves. With the Government's completion of participation agreements with the field partners—BNOOC, Deminex, Santa Fe International, Tricentrol, Burmah, Ashland, Conoco, Gulf and the Charterhouse Group—the Corporation has gained access to well over half of the field's output under several different arrangements.

BNOOC officially started its existence on January 1, 1976, and in a short space of time its influence in U.K. offshore matters has become all-pervading. An important aspect of this power is its possible future control, through participation agreements and its own equity stake, in fields of more than half of the North Sea's oil production.

Thistle is the first commercial venture to be operated by BNOOC and marks the latest role it is playing as an oil trader. By 1980 it will be handling between 800,000 and 1m. barrels a day of equity and participation crude from the North Sea and this will be added to by oil taken as royalty. The total will be a significant one even in world terms. BNOOC will be controlling perhaps as much as 7 to 10 per cent of the world's total

output of low-sulphur premium crude—oil that is sought worldwide as a refinery ingredient for making light products such as petrol and chemicals.

Under the Act which established BNOOC it was given powers to act as an integrated oil company. However, for the moment its chief priorities are to gain access to crude oil through its equity and participation interests and to build up expertise as an offshore operator.

With a fifth round of offshore licensing BNOOC was given the guarantee of a 51 per cent equity interest in all blocks allocated, which has confronted it with the task of negotiating individual agreements with each group of partners. The oil companies have been uneasy at the corporation's possible range of influence in these concessions.

They have for example sought assurances that it would not use its power to unduly delay field development or use information obtained in one block to gain commercial advantage in another. But it is certainly

fact that the mooring's second hose consequently became free system to be used for Thistle's transmitting oil. This gives oil: the fact that the Brent field pipeline to the Sullom Voe terminal has not been brought into use on schedule and the geographical location of the field, 130 miles from Shetland in water 530 feet deep.

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fact that the mooring's second hose consequently became free system to be used for Thistle's transmitting oil. This gives oil: the fact that the Brent field pipeline to the Sullom Voe terminal has not been brought into use on schedule and the geographical location of the field, 130 miles from Shetland in water 530 feet deep.

The non-availability, at least for the first year of Thistle production, of the pipeline left the operators with little alternative to a deep-water single point mooring to service a shuttle of oil tankers. But in spite of the still relative novelty of the SPM system, there is now a wide range of designs, based on the experience of the 200 or so moorings in use around the world, to choose from.

Thistle's mooring is of the single anchor leg variety and has been designed by the Single Buoy Moorings subsidiary of the Dutch shipbuilder, IHC, on the basis of an Exxon patent. This company has been responsible either wholly or partly for six point moorings already in service in the North Sea, but its previous installations in the North Sea and elsewhere have chiefly been standard single buoy moorings anchored to the seabed with long catenaries of chains.

At the time a design was sought for Thistle, it was believed that catenary chains (used for mooring the buoys) would be subject to ripple, chafing and resultant down-time because of the depth of water and roughness of conditions. This problem has, in fact, been solved in the last two years, but in the meantime Thistle was provided with a somewhat different system.

The single anchor leg mooring, adapted for deepwater use by replacing the chain connection between the seabed gravity anchor base and the buoy with a flexible tubular steel swivel assembly. It retains the basic feature of the single point mooring method — namely a weather-vane type buoy which is capable of swivelling 360 degrees, allowing the tethered vessel to swing around the mooring according to prevailing seas. This reduces the danger of collision between the tanker and the buoy.

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clear that BNOOC's advisory and monitoring roles have grown rapidly in the past two years.

It was with the Thistle Field that the Corporation took its first major steps forward to the status of an operating oil company when it acquired most of the assets, expertise, and exploration and production staff from the North Sea operation of Burmah Oil. Under this deal, in 1976 BNOOC paid Burmah £103.3m. for 65 per cent of its holding in Thistle and the adjacent oil accumulations in Areas 1 and 6, as well as the company's interests in other parts of the North Sea. The Corporation paid \$80m. for Burmah's block 3/3 interest in the Ninian Field.

Burmah was left with a toe-hold in the North Sea in the form of its 3.1 per cent interest in Thistle, but it had lost the ownership and was left with a pale shadow of the role it had played before it encountered financial disaster. The company is finally extricating itself from these financial problems, and, though no longer an oil company, as such, it still sees itself as an oil-based enterprise. It is planning something of a North Sea comeback. It hopes to be involved in the sixth round of licensing—expected later this year—and it has taken on the role of offshore operator in two areas of the world, off the Italian Adriatic coast and off the Seychelles.

Over the past 12 months the share of other partners in the Thistle discovery have also altered with the conclusion of various deals. Santa Fe, the U.S. conglomerate with interests in railways, haulage, pipelines, property and construction,

which includes interests in banking, insurance broking, development capital, engineering and construction. It has already agreed to sell to BNOOC its share of crude from Thistle, the relieving itself of the market responsibility. But its interest will grow. As a member of consortium it has an eight and one sixth interest in two blocks in the Moray Firth granted in the fifth round, and together with Gulf Oil and Tricentrol will be applying for licences. The sixth round in the Sea Western Approaches. It is also looking for licences in North Sea waters.

The remaining shareholders are Conoco, 1.16 per cent, Gulf, 1.16 per cent. Both major U.S. oil companies have far greater interests in North Sea discoveries, particularly in the Murchison Field, also in the extension of the field.

The smallest shareholder Thistle with 0.96 per cent, Charterhouse Petroleum, part of the Charterhouse Group, which includes interests in banking, insurance broking, development capital, engineering and construction. It has already agreed to sell to BNOOC its share of crude from Thistle, the relieving itself of the market responsibility. But its interest will grow. As a member of consortium it has an eight and one sixth interest in two blocks in the Moray Firth granted in the fifth round, and together with Gulf Oil and Tricentrol will be applying for licences. The sixth round in the Sea Western Approaches. It is also looking for licences in North Sea waters.

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forest products and other natural resources as well as petroleum, sold out part of its 21.72 per cent interest to Ashland Oil.

Ashland bought 5.43 per cent of Thistle for \$45.9m, an unexpectedly high price. The deal valued the price of the oil in the ground at nearly five times the figure paid by Deminex to United Canso three years earlier. (Though in the meantime, of course, the bulk of the development expenditure had been committed). Ashland is an oil company that is crude short in that it refines and markets much more than it produces. So it is not surprising that its agreement also gives it the right to buy more crude oil from Santa Fe's remaining 16.29 per cent interest.

While Ashland might have been short of crude, it was short of finance to fund development costs that for a time hampered the efforts of the other Thistle partner with a appreciable stake in the field, Tricentrol.



# Platform a feat in itself

IN ITS SHORT but eventful life, the British oil platform construction industry has faced a large share of criticism, ranging from accusations of poor quality, late delivery and failure to compete competitively on price, to a disappointing record in attracting follow on orders. There is undoubtedly some truth in all these charges, but it is equally true that the criticism has obscured some of the industry's achievements, which are impressive. It is often forgotten that less

than ten years ago there was no platform industry in the U.K. Many of the companies which now have substantial successes tucked into their belts, had little or no experience in the offshore oil industry, and certainly no background in building and installing the sort of structures needed to withstand North Sea conditions.

They entered a lucrative market, but it was against competition from the U.S. and all over Europe, and often from firms

with worldwide reputations in the oil industry.

It is against this background that major feats of engineering such as the construction and installation of the Thistle "A" Platform should be judged. Its launch from Laing Offshore's Graythorpe yard on Teesside in the summer of 1976 was partially overshadowed by the fact that there was no follow on order and large scale redundancies resulted. Looked at now, it is perhaps easier to see the magnitude of the job.

Not only was Thistle the largest mobile structure then built—standing 920 feet from base to the top of its flare stack, and weighing 34,000 tons at float out (60,000 tons fully loaded)—but it was to be positioned in some of the deepest water in the North Sea oil province. British firms took a major slice of the \$600m. construction and installation contracts, and were involved at every stage.

The project was managed by Taywood-Santa Fe, which had the job of procuring supplies and services as well as co-ordinating design and construction. The design work was the responsibility of CJB Offshore, part of the John Brown Group, which sublet the design of the platform and modules to the British-American joint venture formed by itself and Earl and Wright.

CJB Offshore was also involved in the hook-up work with two other British companies, William Press and Balfour Kilpatrick. Together they had 500 men working offshore in difficult conditions removing the foundation modules and completing the tower. Despite the fact that the contract was one of the two biggest in the North Sea and that its novelty entailed some additional work, the job was completed inside the target period.

Construction of the jacket itself was carried out by Laing, but contracts for the 33 modules was distributed widely. Eight were built in France by U.I.E., and a further seven in Spain by Dragados, but the rest were built by British companies—William Press, E.A.E., Motherwell Bridge and Foster Wheeler, which had 12.

The position of the Thistle Field 130 miles north-east of Shetland, under 530 feet of

water—one of the deepest offshore sites anywhere in the world—dictated the sort of platform needed. It was clear from the start that it would have to be very big and strong to withstand some of the worst weather in the North Sea.

In the event, the designers built into the platform an ability to withstand storms only expected to occur once in every 100 years—wave heights of nearly 100 feet and gusts of wind up to 152 mph.

The designers considered a concrete gravity platform which would merely sit on the sea bed, using its great weight to maintain position, but after studying the geology, rejected the idea. The seabed, made up of layers of various sands up to six feet thick sitting on silty clays, was not considered strong enough to withstand the enormous strains which would be transmitted by the platform base as the structure was rocked by wind and waves.

So they opted for steel, which meant that the jacket would have to be the largest steel structure ever constructed and that it would have to be piled into the seabed. The implications of that can be judged from the fact that the piles themselves weighed 11,000 tons.

The adopted design, which was built by Laing using 24,000 tons of steel, was for a tower 607 feet tall with a base measuring 280 feet by 270 feet. It had two straight legs 30 feet in diameter with cylindrical oil storage tanks mounted along them at the base capable of holding 35,000 barrels of crude each.

The other two legs, inclined inwards, were tapered, narrowing from 20 feet diameter at

the base to six feet at the top. The tower was built on its back in the graving dock at Graythorpe, using the two straight legs as a base. When the dock was flooded at the start of the 485-mile voyage to the field, these legs and the storage tanks mounted on them, acted as buoyancy tanks, enabling the huge structure to float unsupported.

It was accompanied to its destination by four ocean-going tugs with a combined horsepower of 30,000, which stood by while one of the most delicate parts of the operation, the flooding of the tanks to turn the tower upright and drop it into position, was carried out.

## Complexity

This manoeuvre—so complex that it was likened by one of the partners to a space launch—had been practised many times in miniature using a scale model floating in a water tank. It entailed a controlled flooding of the compartments in each buoyancy tank so that the tower could be uprighted, rotated on its axis and finally dropped on to the seabed.

The operation was made easier by the weather. The day in August 1976 was fine and the sea flat calm. There was a slight moment of anxiety when the wire link between the control ship, MV Orea, and the platform's control module failed, but a radio back-up system took over automatically and positioning was achieved perfectly first time.

When the tower touched the bottom, its own weight caused the legs to sink slightly into the sand, providing sufficient

stability until the first piles were driven in place.

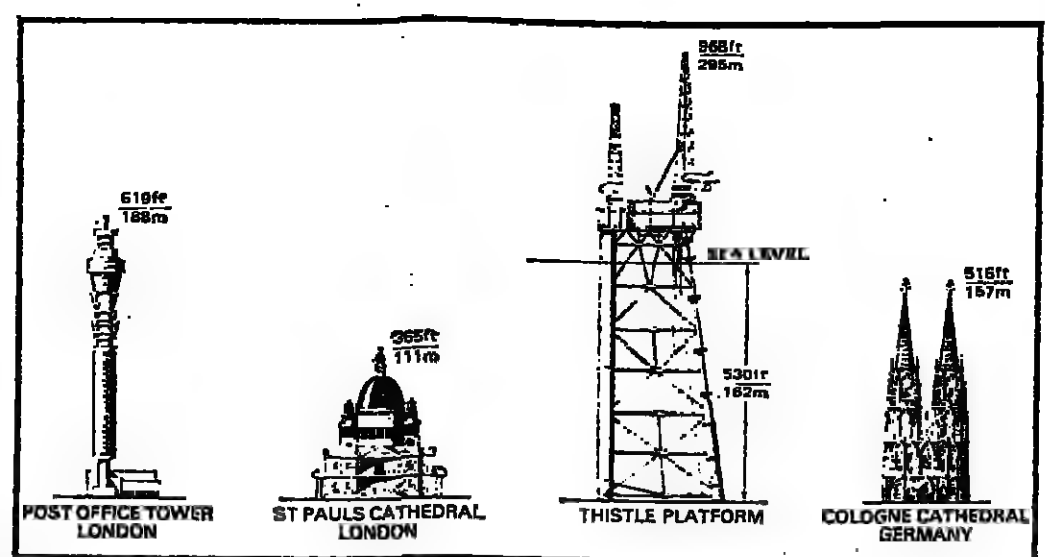
Piling was done from the tower itself, using equipment housed in modules placed on the structure directly after positioning. The 32 first stage piles, 54 inches in diameter and 200 feet long, were driven home by heated-air operated hammers to a depth of 101 feet below the sea bed. After driving they were permanently bonded to the guides around the tower legs with special cement.

When this was complete, central holes were drilled into the piles to a depth of up to 470 feet and the second stage piles inserted and grouted in place.

Completion of the piling and removal of the construction modules, was followed by the loading of the modules containing drilling and production equipment, which made up the first two decks of the tower and contained the two 36 megawatt gas turbine driven generators to power the platform's systems, the water injection pumps, compressors for gas re-injection, gas and water separation equipment, meters to measure the oil production, the wellheads, drilling rigs, stores, control rooms and other equipment.

Above these two decks were placed the modules providing accommodation for the 130 permanent production workers, the helicopter pad and flare tower. Only when installation of all these had been completed could work begin on the important job of drilling the 40 production and 20 injection wells.

Ray Perman  
Scottish Correspondent



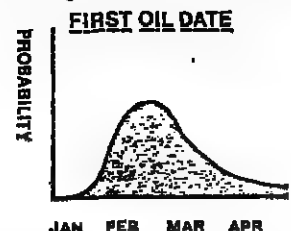
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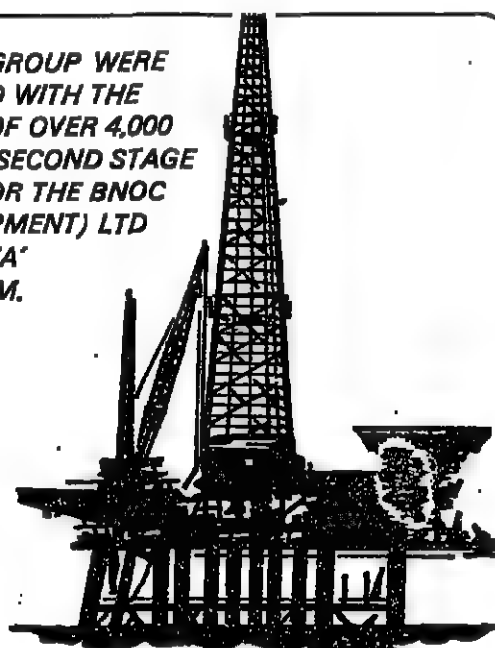
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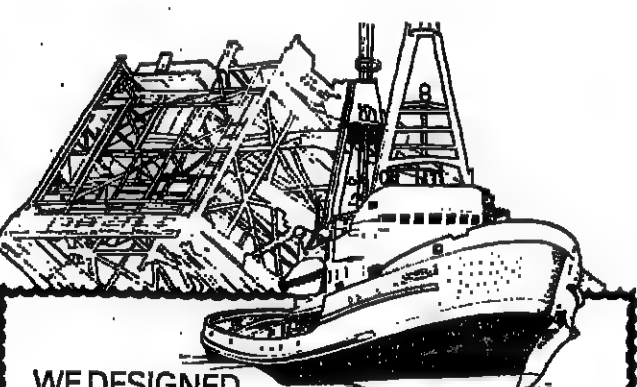
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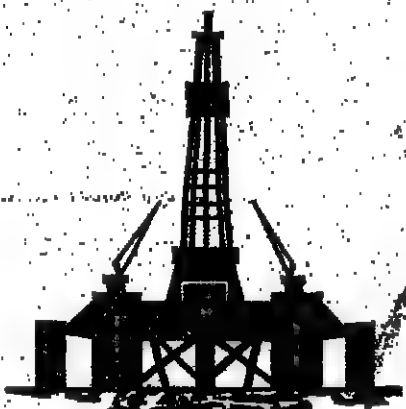
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For enquiries please ring Hitchin (0462) 52524

## Maintenance is the next concern

THE CONSTRUCTION phase on Thistle is not yet complete, but work is winding down. More wells will be drilled until the platform has its full complement, in 1979. Then BNOOC, as operator, will be producing about 200,000 barrels of oil a day, for itself and its field partners.

As this stage is reached it might be expected that the platform personnel will fall into a rhythmic routine with everything working in accordance to a defined programme.

But there will be problems, emergencies and surprises. The industry is young, and every platform is different. Equipment failures, even minor failures, can be expensive. At peak production will be worth about £1.4m. a day and the cost of a shutdown will be enormous. There is no North Sea platform that has not had to shut down since it went on stream but it is obvious sense to take every possible step to keep shut-down time to a minimum.

Coupled with the financial cost is the social cost of failure. In North Sea conditions, breakdowns can cause accidents, loss of life and pollution of the sea.

Recent events confirm the reality of the risk. The Ekofisk Field blow-out occurred less than a year ago, followed by the Maersk Explorer blow-out in the Danish sector. Last month five men died in a fire on the Statfjord Field and there have been other lesser incidents.

The public does not forgive or forget incidents of this kind quickly and hence oil companies and governments have become increasingly aware of the need for adequate safety precautions.

Perhaps unfairly, BNOOC is in a peculiarly sensitive position here. Because it is the state oil corporation, any suggestion that it fell short of expected standards would attract more criticism than the shortcomings of an ordinary commercial oil company. Like Caesar's wife, the corporation must be above suspicion. This was not wasteful, simply prudent. All the valves, multi-purpose ship with full

had been poured according to a particular foundry method and we decided not to take a chance, although this caused considerable delay in commissioning the platform."

Throughout the life of the field a rigorous maintenance and inspection programme is planned. This, in simplified terms, is rather like a car service schedule should be but, in practice, usually is not. And, unlike the car service schedule, the programme will be continually restructured in the light of new knowledge and experience. It is planned to be more stringent than that laid down by the manufacturers.

"Maintenance, and the inspection programme which is an essential part of it, is primary," says Mr. Rybicki. "Safety precautions are secondary. I do not mean by this that we do not fully respect the need for the most stringent safety precautions. Rather I am emphasising that maintenance is our first line of defence. Safety systems are essential but, in theory, they should never come into operation if the maintenance programme is fully effective. Safety, in the first instance, means maintenance."

But, of course, the platform facilities include the full array of protection systems, as advanced as is practicable, say the managers. These include ultra-violet smoke and fire detection systems, sprinklers and deluge systems, a halon gas to measure erosion and corrosion and ensure that it is selected modules, such as the gas compression and power to generation modules, where there is a significant explosion risk, and an automatic shut-down system.

The BNOOC men are reluctant to talk about these devices in detail. "We never give our reasons for buying a particular item of equipment," said one of them, stiffly. "Always on the field, and essential to both maintenance and safety is the support vessel Stena Welder, on long-term charter to BNOOC. She is a multi-purpose ship with full

## Operator

Shell is the co-ordinator for the club, as operator of the largest field in the area, the Brent Field. Shell has the Capalonga, a vessel similar to the Stena Welder but larger, and will shortly be securing the semi-submersible Uncle John, owned by Houlder Offshore and claimed to be the fastest semi-submersible in service. Both these vessels will be available to speed to the Thistle Field should the need for their additional fire-fighting and other emergency facilities ever arise.

Most accidents are caused by human error of some sort. In recent months, intensive training in safety drills has been a predominant part of the life of everyone who will man the Thistle platform. What is important for the future is that this training should be maintained and refreshed and that the routines laid down should be followed in the years ahead, when the temptation to cut corners will arise as familiarity with operations increases.

BNOOC managers declare that they are fully aware of this danger. Their philosophy, they say, is to regard safety as an attitude of mind, from the top of the organisation downwards. An instruction from head office to push production, for example, must always be overruled if there are any hazards involved.

Bruce Andrews  
Editor, North Sea Letter







FINANCIAL TIMES STOCK INDICES						
	Apr. 7	Apr. 8	Apr. 9	Apr. 10	Mar. 31	A year or more
Government Secs.	75.96	74.55	74.06	73.84	73.36	70.69
Fixed Interest	77.43	77.58	77.59	77.53	77.16	77.38
Industrial Ordinary	467.1	471.4	470.2	469.2	465.8	408.0
Gold Mines	153.0	153.7	156.1	156.1	157.4	138.2
Int. Div. Yield	5.77	5.75	5.79	5.79	5.94	5.81
Savings Yield (fully)	16.86	16.71	16.80	17.01	17.17	17.48
P/E Rat in (incl. 10%)	8.39	8.17	8.50	8.55	8.18	8.82
Issuings marked	429.73	5,389	4,944	5,124	4,839	5,498
Equity turnover 2nd		78.15	65.15	75.39	60.56	74.54
Equity margin incl.		160.94	163.84	226.83	19.15	15,339

10 a.m. 471.1 11 a.m. 471.8 Noon 470.2 1 p.m. 471.1  
2 p.m. 471.8 3 p.m. 471.5  
Latest London 15-36-00  
Based on 100 Gns 1937-38. Fixed Int. 1938. Ind. Ord. 1/7/35. Gold Since 12/9/35. SE Activity July-Dec. 1937.

FINANCIAL TIMES STOCK INDICES									
	1978				Share Composition		Apr. 7		Apr. 8
	High	Low	High	Low			Apr. 7	Apr. 8	
Govt. Secs.	75.59	75.94	137.4	94.15	Daily		189.9	177.9	
	(50)	(44)	(9/1555)	(10/70)	Gilt-Edged		180.5	211.0	
Fixed Int.	81.77	77.14	150.0	50.33	Savings		50.0	59.5	
	(64)	(152)	(200/117)	(25/50)	Totals		113.1	135.8	
Ind. Ord.	497.3	633.6	549.2	49.4	6-day A'vage		169.8	167.4	
	(64)	(23)	(146/7)	(26/50)	Gov. Secs.		278.3	283.8	
Gold Mines	168.6	120.3	342.4	42.5	Industrial		41.9	85.2	
	(60)	(61)	(222/7)	(10/1)	Specialists		118.5	131.0	

FINANCIAL TIMES STOCK INDICES

	April 7	April 8	April 9	April 10	April 11	Mar. 31	A Year or More
Industrial Group	208.17	208.99	205.63	201.40	199.26	199.63	162.74
0 Shares	223.46	223.50	222.77	221.67	219.59	221.07	185.61
A. Value yr.	5.53	5.90	5.61	5.64	5.99	5.65	5.81
N Ratio (incl)	7.98	7.97	7.96	7.97	7.80	7.98	9.26
1 Share	206.20	206.83	204.15	203.48	203.76	206.17	171.55







### INDUSTRIALS—Continued

[illegible]**INSURANCE—Continued**[illegible]**PROPERTY—Continued**[illegible]**INV. TRUSTS—Continued**[illegible]

## FINANCE, LAND—Continued

[illegible]

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Tokyo, Japan

### MINES—Continued

[illegible]

TINS							
Apr.	Amal. Nigeria	—	25	13.3	12.51	1.6	15.2

[illegible]

**COPPER**  
Dec./Messina 80.50 ——— 86 12.12 4030c 1.9) #

MISCELLANEOUS									
g. Feb.	Barnes Mines 17hp.	9	575	—	—	—	—	—	—
	Cons. March. 10c.	258	311	Q30c	2.6	7.2	—	—	—
	Northgate CSl	297	375	—	—	—	—	—	—
n. June	R.T.Z.	196	5110	18.5	q31	6.6	—	—	—
	Sabina Inds. CSl	31	—	—	—	—	—	—	—
	Flora Expts. 51	858	—	—	—	—	—	—	—

July Tenney Minerals Inc.	43	17.10	121	2.5	4.3
ber Yukon Cons. Cpl.	152	15.9	Q7c	φ	2.2

### NOTES

Unless otherwise indicated, prices and net dividends are in cash and denominations are \$25. Estimated price/earnings ratios and covers are based on latest annual reports and accounts, and, where possible, are updated on half-yearly figures. P/E's are calculated on the basis of net distribution; bracketed figures indicate 10 per cent. or more difference if calculated on "all" distributions. Covers are based on "maximum" distribution. Yields are based on middle prices, are gross, adjusted to ACT of 10 per cent. and allow for value of declared distributions and

Securities with denominations other than \$100,000 are inclusive of the investment dollar premium.

**"Tap" Stock.**  
Highs and Lows marked thus have been adjusted to allow for rights issues for cash.  
Interim since increased or resumed.  
Interim since reduced, paused or deferred.  
Tax-free to non-residents on application.  
Figures or report awaited.  
Unlisted security.  
Price at time of suspension.  
Indicated dividend after pending scrip and/or rights issue.

the interim: reduced fixed and/or reduced earnings

Forfeited dividend; cover on earnings updated by latest interim statement.  
Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.  
Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.  
Excluding a final dividend declaration.  
Regional price.  
No par value.

**f** Dividend rate paid or payable on part  
based on dividend on full capital.

Payment from capital sources. ☐ Kenya. ☐ Interim higher  
 a previous total. ☐ Rights issue pending. ☐ Earnings  
 on preliminary figures. ☐ Australian currency,  
 dividend and yield include a special payment. ☐ Indicated  
 dividend: cover relates to previous dividend, P/E ratio based  
 latest annual earnings. ☐ Forecast dividend: cover based  
 previous year's earnings. ☐ Dividend free up to 50p in the £.  
☐ Yield allows for currency change. ☐ Dividend and yield  
 include a special payment. ☐ Dividend and yield as a  
 special payment: Cover does not apply to special payment.  
 Dividend and yield. ☐ Preference dividend payment.

**D** Cover and P/E ratio exclude profits aerospace subsidiaries. **E** Issue price. **F** Dividend based on prospectus or other official estimates for **G** Assumed dividend and yield after pending scrip

for prospectus issued. H Dividend and yield based on prospectus or other official estimates for 1976-77. S Dividend and yield based on prospectus or other official estimates for 1978. T Dividend and yield based on prospectus or other official estimates for 1979. U Dividend and yield based on prospectus or other official estimates for 1977. F Dividend and yield based on prospectus or other official estimates for 1977. Gross. T Figures assumed. U No significant Corporation payable. S Dividend total to date.  $\frac{\$}{\$}$  Yield based on current Treasury Bill Rate stays unchanged until maturity stock.

ations: *sex dividend*; *sex scriptism*; *sex rights*; *sex  
capital distribution*.

is service is available to every Company dealt in on  
Stock Exchanges throughout the United Kingdom for a  
fee of £400 per annum for each security

## REGIONAL MARKETS

any For. 20p	23	Sheff. Refranch.	51
Spinnavin	45	Sindall (Wm. J. & Co.)	53
Isam	26		
wtr. Est. 50p	282		
ver Croft	22		
ig & Rose El	410		

**IRISH**

R. A. A.	41	Conv. 8% '80/82	195 <sub>2</sub>
McHdy.	42	Alliance Gas	75
Yk-10p.	57	Arnott	290
	154	Carroll (P.J.)	92

ray Pkg. Sp.	2nd	.....	Clonachan	91st	.....
lg Strin. E.L.	180	+10	Concrete Prods.	128	.....
..... Bros.	147	.....	Heaton (Hedge)	43	.....
M. Stm. Fl.	80	.....	Ins. Corp.	200	.....
..... (Joc.)	255	.....	Irish Ropes	132	.....
..... Goldsmith	543	.....	Jacob	45	.....
..... (C. H.)	139	.....	Sunbeam	29st	.....
..... Mills	18 <sup>1</sup> / <sub>2</sub>	+1 <sup>1</sup> / <sub>2</sub>	T.M.G.	190	.....
..... Field Brick	45	-1	Unidare	82	.....

**ANTHONY**

Materials	LCI	23	Tube invest	32
New	65	7	Unilever	40
Cement	15	20	Utd. Drapery	75
R	9	7	Vickers	15

Rank.	10	RC A	5	Woolworths	6
	25	Ladbroke	27		
	38	Legal & Gen.	14	Property	-
	15	Lex Service	7	Brit. Land	314
	14	1 Ladbroke	22		

aters	16	Loys & Sons	5	Cap. Counties	1
T	24	Loys	5	E.P.	4
oxy Oxygen	6	London Brick	5	Intreuropean	4
ish (J.)	28	Lorrio	25	Land Sees	18
on A'	13	Lucas Ind.	7	MEPC	12
ourys	5	Lyons & J.	15	Peachey	10
tauilids	18	"Mams"	7	Samuel Propo.	10
enham.	10	Mks. & Spencer	25	Town & City	2
lthers	13	Midland Bank	11		
lop.	9	N.E.I.	23		
		N. E. Bank	23	Oils	

17	Do. Warrants	10	Brit. Petroleum	35
18	P & O Dfd. ....	10	Burmah Oil	7
17	Plessey	9	Charterhall	32
40	R.H.M.	5	Shell	28

W.	16	Rank Drg. 'A'.	18	Ultramar.	22
and Met.	9	Reed Inf.	14		
S. 'A'	18	Spillers	4	Mines	
Ordian	22	Tecco	4	Charter Cons.	12
N.	22	Thorn	22	Cons. Gold	29
Rock Sidd.	26	Trust Houses.	15	Rio T. Zinc	16
of Fraser.	12				



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